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AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

FEBRUARY 15, 1951



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18 to 24 ins.	40.00	2 to 3 ft.	40.00	15 to 18 ins.	30.00
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15 to 18 ins.	30.00	18 to 24 ins.	28.00	2 to 3 ft.	65.00
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15 to 18 ins.	20.00	Honeysuckle, Tatarica Rosea,		18 to 24 ins.	22.00
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2 to 3 ft.	45.00	18 to 24 ins.	40.00	2 to 3 ft.	40.00
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The Nurseryman's Forte: To Make America More Beautiful and Fruitful

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CONTENTS

Pennsylvanians Meet at Pittsburgh.....	7
Public Throngs Exhibits at Virginia.....	9
By A. S. Gresham, Jr.	
Michigan Honors Past Presidents.....	11
Forty-fourth Ohio Convention.....	12
By L. C. Chadwick	
Arborists' Day at Ohio Short Course.....	13
By Theodore F. Mathieu	
Landscape Gardeners' Day at Ohio.....	14
By Jack D. Strader	
Nurserymen's Day at Ohio Course.....	15
By B. C. Smith	
New Jersey Attendance Shows Increase.....	16
By L. C. Schubert	
North Carolina Short Course.....	17
By E. H. Tinga	
Western New York Meeting.....	19
By A. L. Synesael	
First New York Arborists' School.....	20
By A. M. S. Pridham	
Cornell Speakers at New York School.....	21
By Clarence E. Lewis	
Maryland Short Course on Propagation.....	23
By Bernard Bridges	
Vermont Nursery and Tree Conference.....	32
By Edward P. Hume	
Plant Notes Here and There.....	40
By C. W. Wood	
Editorial.....	6
—Freeze Prices and Wages.....	6
—Short Count.....	6
—How to Be Confused.....	6
Wilbur I. Nisley (Portrait).....	7
Harold Hunziker (Portrait).....	11
Lewis S. Bookwalter (Portrait).....	12
James S. Melton.....	18
Robert Auld (Portrait).....	19
Long Island School.....	22
Milwaukee Protest.....	22
Milwaukee Plantings.....	22
Western Pennsylvania Elects Officers.....	30
Virginia Short Course.....	48
Central Michigan Group Elects.....	49
Obituary.....	50
—Sidney P. Wells.....	50
—Dominic Baratta.....	50
—Chapman L. Harbour.....	50
—Mrs. Katie Rubel.....	50
—Dr. Jesse M. Greenman.....	51
Cover Illustration.....	52
—Cotoneaster Adpressa.....	52
Seek Rail Rate Boost Now.....	53
Tree Maintenance.....	54
—Income Tax Deduction Storm Damage to Trees.....	54
—What's New?.....	54
Coming Events.....	60
—Meeting Calendar.....	60
—Pennsylvania Meeting.....	60
—A. A. N. Special Trains to New Orleans Convention.....	60
—Canadian Program.....	60
California Association of Nurserymen.....	66
—Los Angeles Chapter.....	66
—Redwood Meeting.....	66
California Notes.....	67

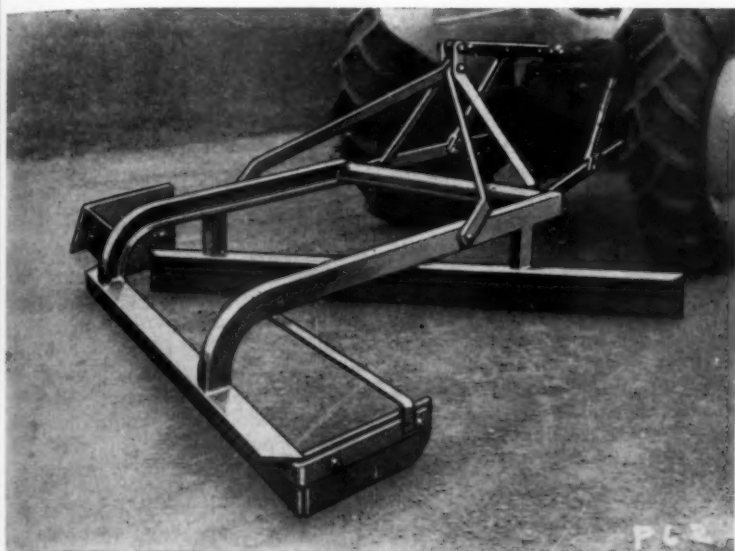
INDEX TO ADVERTISERS

Alanwold Nursery	32	Gre-Quick	86-94-97	Peterson & Dering	72
American Agricultural Chemical Co.	91	Growers Exchange, Inc.	37	Pinkston's Nurseries	61
American Bulb Co.	56	Growers Sign Service	35	Plant Marvel Laboratories	84
American Florist Supply Co.	82			Plant Products Corp.	90
Andrews Nursery Co.	54			Pontiac Nursery Co.	33
Anthony & Co.	89	Haas Home Nurseries	62	Portland Wholesale Nursery	71-98
Arp Nursery Co.	59	Half Moon Mig. & Trading Co.	96	Premier Peat Moss Corp.	95
Arterburn Nursery, Paul	52	Halpern Bros.	90	Premier Southern Ticket	87
Atkin's Sons, L.	88	Headley's Nurseries	49	Presto Mig. Co.	88
		Henderson & Co., Peter	56	Princeton Nurseries	45
		Henry Nurseries	54	Propulsion Engine Corp.	43
Bagatelle Nursery	47	Herbst Bros.	1-38		
Bailey Nurseries, J. V.	57	Hess' Nurseries	49		
Baker's Nurseries	36	Hill's Nursery	73	Rambo's Whlse. Nurseries, L. J.	65
Barker Mig. Co., Inc.	82	Hill Nursery Co., D.	100	Ramsey Co., L. W.	73
Bartlett Mig. Co.	38	Hobbs & Sons, Inc.	52	Ravensberg, Maurice C.	58
Bennington's Nursery Gardens	62	Hoogendoorn, C.	46	Reynolds, Harry H.	69
Berryhill Nursery Co.	94	Horstford, William Crosby	36	Rhode Island Nurseries	45
Bird & Son, Inc.	31	Horticultural Book Service	72-98	Rich & Sons Nursery	68
Blackwell Nurseries	60	House & Sons Nurseries, L. C.	61	Richardson & Co., H. D.	65
Blue Ridge Nursery	40	Howard Rose Co.	69	Rider Nurseries	66
Bobbink & Atkins	34	Humphreys Landscape Service	62	Roadside Landscaping, Inc.	82
Bond Equipment Co.	42-95	Hyper-Humus Co.	88	Roberts Nursery Co.	63
Boulevard Nurseries	42-87			Robinson, E. D.	44
Boxwood Gardens	51			Rogers Wholesale Nurseries	62
Boyd Nursery Co.	58			Rollers Nursery	61
Brimfield Gardens Nursery	48	Ilgenfritz Nurseries, Inc.	53	Roper Mig. Co.	94
Brinkman Bros., Ltd.	58	Itner Bros.	87	Roto-Hog and Sprayer Co.	89
Broadway Machine & Mfg. Co.	96			Rough Bros.	93
Brookdale-Kingsway, Ltd.	59	Jewell Nurseries, Inc.	55	Rover Foundry & Machine Co.	47
Brookfield Gardens	45	Johnston, Wm. A.	69	Rust Mig. Co., John	91
Brookville Nurseries	50				
Brouwer's Nurseries	38	Kalamazoo Paraffine Co.	94	Salem Tool Co.	95
Brown Deer Nurseries	50	Kallay Bros. Co.	52	Scarff's Sons, W. N.	65
Brownell Roses	46	Keeler's Gardens	63	Schroth's Nursery	36
Bryant's Nurseries	57	Kelly Bros. Nurseries, Inc.	66	Semmes Nurseries	60
Bulk's Nurseries	48	Kluis' Nurseries	32-44	Shepard Nurseries	82
Buntings' Nurseries, Inc.	64	Koster Nursery	37	Sherman Nursery Co.	54
Burr & Co., Inc., C. R.	48	Krieger's Wholesale Nursery	57	Sherwood Nursery Co.	70
Burton's Hilltop Nurseries	57	Kuemmerling, Inc., Karl	98	Siebenshaler Co.	51-53-87
				Sizemore, Charles	57
California Nursery Co.	56			Skinner & Co., J. H.	65
Call's Nurseries	53	LaBars' Rhododendron Nursery	48	Smith Corp., W. T.	50
Carlton Nursery Co.	71	Lake's Shenandoah Nurseries	57	Smith & Son, Seymour	82
Carpenter & Co., Geo. B.	93	Lansing Specialties Mig. Co.	90	Sneed Nursery Co.	59
Champion Sprayer Co.	56	Leeland Farms	61	Snyder Mig. Co.	94
Chase Bag Co.	33	Leghorn's Evergreen Nurseries	44	Soilaire Industries	39
Chase Co., Benjamin	88	Leonard & Son, A. M.	89	Somerset Rose Nursery	56
Chase Nursery Co.	61	Lindig Mig. Co.	90	Southern Nursery & Landscape Co.	62
Clark Nursery, Arnold C.	62	Loewith, Inc., Julius	90	Stassen Floral Gardens	62
Classified Ads	74-75-76-77-78-79-80-81	Lovett, Lester	51	Stedman Nurseries	34
Clearfield Bituminous Coal Corp.	44			Stribling's Nurseries	68
Cloverset Flower Farm	41	Maloney Bros. Nursery Co., Inc.	54	Sudbury Soil Testing Laboratory	96
Cole, R. M.	49	Matthews' Nursery	55	Summit Nurseries	65
Commercial Nur. Co.	63	Maxmor Specialties Co.	71	Suncrest Evergreen Nurseries	36
Congdon Nursery, Ivan R.	49-63	Maywood Rose Nursery	71	Sunny Ridge Nursery	48
Conigisky, B. F.	98	McGill & Son, A.	71	S-W Supply Co.	86
Cooperative Rose Growers	61	McIninch Greenhouses	52	Swift & Co.	51
Cottage Gardens	51	Meehan Co., Thomas	42-90		
Crystal Soap & Chemical Co.	49	Mel-lo Peat Co.	86	Tankard Nurseries	34
Cumberland Plateau Nursery	62	Mennes Nurseries, Menno S.	84	Taylor & Sons, L. R.	64
Cumberland Valley Nurseries, Inc.	50	Michigan Peat, Inc.	73	Tingle Printing Co.	53
Cunningham Gardens	53	Milton Nursery Co.	71		
Curtis Nurseries	42	Mitsch Nursery	71	Ulyette Bros. Nursery	66
		Monarch Shingle Co.	72	United States Rubber Co.	53
Dayton Fruit Tree Label	98	Monrovia Nursery Co.	67	Universal Mig. Co.	97
Deerfield Nurseries	47	Montebello Rose Co.	72		
Del-Mar-Va Nurseries	45	Moran, E. C.	56		
Del Rancho Fortuna	68	Mosty Bros.	60	Vanderbrook Nurseries	47
Doerfler & Sons Nursery, F. A.	71	Mount Arbor Nurseries	2	Van Dine Nursery	46
Domestic Peat Co.	90	Mount Good Nursery	71	Van Herreweghe, William	58
Doty & Doerner, Inc.	71	Mount Vernon Nursery	72	Van Hof Nurseries	64
Dow Chemical Co.	97	Musser Forests, Inc.	48	Vennard's Nursery	56
Durant Nursery Co.	59			Verhalen Nursery Co.	45
		National Landscape Institute	69	Verkade's Nurseries	46
Eagle Creek Nursery Co.	54	Natrop Co., W. A.	54	Versepuy Etablissements	56
Enterprise Nurseries	56	Naugher Nursery Co.	80	Vuyk Van Ness Nurseries	58
Evergreen Nursery Co.	55	Neasho Nurseries Co.	65		
		New Amsterdam Import Co.	89	Wabash Truck Parts, Inc.	84
Fafard, Inc., Conrad	85	Newport Nursery Co.	51	Want Ads	83
Fairview Evergreen Nurseries	48	New York Bag & Burlap Co.	98	Waynesboro Nurseries	32
Felins Tying Machine Co.	86	Nurserymen's Exchange	69	Wayside Gardens Co.	52
Forest Nursery Co.	24-25-26-27-28-29	Nu Way Plant Food Co.	87	Weeks Wholesale Rose Grower	68
Foster Nursery Co., Inc.	64			Weller Nurseries Co., Inc.	53
Fraser Nursery, Samuel	38	Offenberg Nurseries, Paul	52	Westminster Nurseries	47
Fricke & Co., J. E.	98	Ohio Nursery Label Co.	98	Whalley, J. B.	72
		Omarga Nursery Co., Inc.	54	Whitney Seed Co.	56
Garden Shop, Inc.	97	Overlook Nurseries, Inc.	61	Wight Nurseries	61
Gardner's Nurseries	99	Owen & Son, Inc., T. G.	59	Williams & Harvey Nurseries	86
Geiger Co., E. C.	94			Williams, Isaac Langley	38
General Package Corp.	94	Pacific Coast Nursery	72	Willis Nursery Co.	30
Genesco Tool Div.	85	Pacific Northwest Rose Nursery	72	Wirth, Hermann A.	73
George & Son, James I.	44	Pallack Bros. Nurseries	34	Wonderland Nurseries	51
Gledhill Road Machinery Co.	5	Palmer & Son, J. R.	55	Woodruff & Sons, Inc., F. H.	55
Gresham's Nursery	38	Payne Dahlia Farms	57	W-W Grinder Corp.	91
Grootendorst & Sons, F. J.	58	Peekskill Nursery	36		
				Zanetti Co., Joseph	70

Forms for the March 1 issue will close Monday, February 19.

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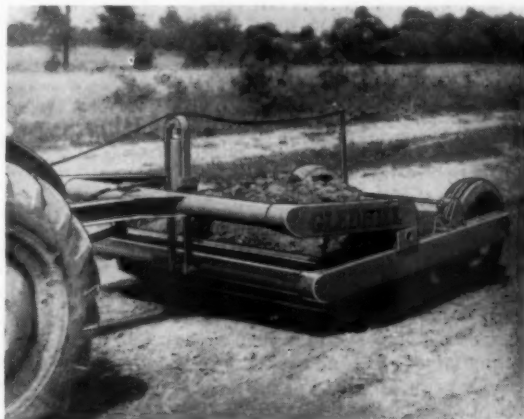
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GALION, OHIO

AMERICAN NURSERYMAN

F. R. KILNER, *Editor and Publisher*

Joan L. Kilner, *Assistant Editor*

Editorial

FREEZE PRICES AND WAGES.

Deferred for some time because of differences of opinion among administration officials at Washington, an order was issued by the federal government, effective as of midnight, January 25, freezing prices of most commodities and services at the top levels reached between December 19 and January 25, and freezing most wages and salaries at January 25 rates.

Officials termed it a stopgap measure and stated that adjustments and possibly rollbacks of the prices of many commodities would be ordered as soon as a "tailored" price control program could be worked out.

In anticipation of such an order, prices had advanced so rapidly on some commodities in preceding months that the administration was forced to take action for which it was not uniformly prepared. The price order was primarily directed to foods and other commodities affecting the cost of living, as well as to materials essential to the rearmament program. Some hope was expressed that the measure might be temporary, meaning that it might be dropped within a year or two if inflation had been controlled by that time.

The price and wage freeze measures were expected to be in most respects similar to those effective during wartime. Under the previous freeze, nursery stock was not affected, since it did not contribute to the primary or essential cost of living. Hence persons engaged in the horticultural industry expect similar freedom from control.

The wage freeze, however, will be as effective in this field as elsewhere. The general rule as to wages, salaries and other compensation was stated to be: "No employer shall pay any employee and no employee shall receive wages, salaries and other compensation at a rate in excess of the rate at which such employee was compensated on January 25, 1951, without prior approval or authorization of the wage stabilization board. New employees shall not be compensated at rates higher than those effective on January 25, 1951, for the jobs for which they are hired." The circumstances relating to the issu-

ance of the order indicated that the war stabilization board had not been able to reach an agreement on the subject, between the three members representing management, three representing public and three representing labor. The order was issued by Eric Johnston, economic stabilization administrator.

Exemption to the wage freeze listed in the announcement included prices or rentals for real-estate property; rates or fees charged for professional services; books, magazines, periodicals or newspapers other than as waste or scrap. These exemptions follow those which prevailed during the wartime price freeze.

Inasmuch as the country's rate of production in practically all lines is vastly greater than the rate that prevailed when wartime controls were imposed on prices and wages, the effect of the present freeze may not be so rigid as the earlier one if the consuming public, as well as businessmen, make a voluntary effort to keep the nation's economy on an even keel. The promulgation of the order may in itself bring some relief if it halts the overbuying, hoarding and price advances that took place obviously in advance of such controls and in an effort to "beat the gun." Prudent business management requires having an adequate supply of materials, but hoarding and ordering beyond ordinary needs only brings black markets.

The issuance of the orders brought a flood of inquiries and protests, from businessmen and consumers alike, in spite of requests for their postponement by the authorities at Washington because local offices had not been set up and were unable to give the answers. Modifications were expected to be made in subsequent interpretations and explanatory regulations.

SHORT COUNT.

For a long time, those who are engaged in the horticulture field have frowned upon the delivery of less than the count specified in an order for plants, bulbs, etc. Most nursery firms are likely to lean over backward in order to give customers full count by adding one or more extra for good measure. Complaint to the contrary is quite rare nowadays.

But with the advance in prices for supplies which nurserymen buy, it has been found that sellers in other

fields—of burlap squares, containers, paper, etc.—do not always make full delivery. The practice is just as reprehensible there as elsewhere and adds to the cost of the merchandise which nurserymen buy. Only by complaint to the seller when a delivery is found short will the practice be halted.

Most suppliers are honest and deliver full count. Many proved in wartime to what extent they seek to satisfy their customers when the going is difficult. They deserve patronage and encouragement. But those firms which quote low prices and then seek to make their profit by short count do not.

HOW TO BE CONFUSED.

Speaking on the subject "How Confused Can You Get?" at the recent convention at Chicago, Edward McFaul averred that the average citizen's habits of reading largely contributed to his confusion, not only on politics and economics, but other subjects as well. He referred to the occasional characterization of the Americans as a nation of headline readers. The brevity of headlines makes it impossible to express the full meaning of the reporter, and frequently the qualifications and explanations that appear in the story below leave a considerably different impression of the facts than the headlines.

Remedial courses in reading are given in many colleges, not only to increase the students' speed, but also the accuracy of their impressions. Many older persons similarly need training how to read for complete and clear understanding. While one need not have the attorney's ability to fathom the intricacies of fine print or the proofreader's eye for errors, one can cultivate, quite profitably, a habit of reading which will save considerable confusion.

This facility will be of more importance as government controls become more numerous and businessmen are beset with regulations. While there are always attorneys, accountants and association secretaries to help and guide us, they all cost money and must be paid for their time. Many businessmen have developed the ability to pick a news story or an article to pieces, so that the contents cannot be misunderstood. It is a useful trait that is well worth developing.

Pennsylvanians Meet at Pittsburgh

Freezing rain and snow prevented greater attendance at the meeting of the Pennsylvania Nurserymen's Association, January 31 and February 1, at the Roosevelt hotel, Pittsburgh, and made it necessary for many to start home before the program ended. But about 150 nurserymen and a few wives braved the elements. It had been ten years since the association had last met at the western end of the state.

Elected to head the association for the ensuing year was Owen B. Schmidt, of F. D. Moore & Sons, Narberth. With him will serve Eugene Muller, of DeKalb Nurseries, Inc., Norristown, as first vice-president and Lewis Barr, of B. F. Barr & Son Nurseries, Lancaster, as second vice-president. Executive committee members elected for 2-year terms were Albert F. W. Vick, Jr., of Vick's Wildgardens, Narberth; Walter F. Stein, Enterprise Nurseries, Wrightsville, and Nick Geers, of Richard Schwoebel Nursery, Ardmore. Hold-over members are Jesse R. S. Flory, of LaBars' Rhododendron Nursery, Stroudsburg, and John M. Eisler, Eisler Nursery, Butler.

After twenty-seven years as secretary-treasurer, Albert F. Meehan, of Thomas B. Meehan Co., Dresher, tendered his resignation. In appreciation of his service, the association presented him with a handsome silver cigarette box and silver ash trays, all suitably engraved. To the assistant secretary who had served along with Mr. Meehan, Miss A. Gertrude Burns, of the same firm, the association presented a beautiful engraved silver cigarette case. Selected by the executive committee to be the new secretary-treasurer was Wilbur I. Nisley, of Walter, Nisley & Walter, Inc., Harrisburg.

Forum on Prices.

The program opened Wednesday morning with a forum led by Jesse Flory, Owen Schmidt and Charles Hetz, of Fairview Evergreen Nurseries, Fairview. Others offered comments from the floor.

The first question was "Prices, what to charge—markup?" So many factors enter the picture in marking up stock for resale that "It all depends" seemed to qualify every answer. Mr. Flory thought that a plant should be priced partly on the cost of replacement, as the retailer has to keep up his inventory. Mr. Schmidt pointed out that the price of the tree was not just governed by the cost of

growing and planting it, but also by expenses, such as breakdown on the job, off days, etc., which cost the nurseryman money. Mr. Schmidt made reference to the planting figures which he had presented last year at the Pennsylvania nurserymen's conference and which were published in the January 15 issue of the American Nurseryman.

Roland deWilde, of deWilde's Rhodo-Lake Nurseries, Shiloh, N. J., thought that a fifty per cent markup on stock for cash-and-carry sale was adequate, while 100 per cent markup should be made on delivered plants. On landscape jobs he usually adds fifty per cent and the cost of other expenses, such as labor and materials, but tries to sell everything at a contract price for the job.

President Charles Boardman, of the Farr Nursery Co., Weiser Park, said that he had noticed that nurserymen on the west coast seem to be able to get more money for many plants than did those in the

east. The average customer does not know just what the price of a plant should be, said Mr. Boardman; so it is up to the nurserymen to educate the public to the value of plants.

J. K. Loeb, of the Flower Farm, East McKeesport, said that, instead of figuring cost on the basis of one plant, he figured on the basis of a group of 100 plants. By keeping the records of the original cost of the plant, and adding charges for freight, a normal allowance for damage, cost of heeling in, digging and selling, crew maintenance time including off days, advertising and normal overhead, he was able to determine a profitable selling price. Some plants in each crop will not be salable; so the cost must be divided among the salable plants, not the total amount purchased or grown.

It was the consensus that, in all, the law of supply and demand would govern, and both the wholesaler and retailer were entitled to take what the market would bear. Mr. deWilde pointed out that if the wholesaler did not overproduce he would not be under pressure to sell at a low figure.

Replacement Guarantee.

The subject of replacement was brought up for some discussion, and so President Boardman called attention to the Pennsylvania Nurserymen's Association uniform retail replacement agreement, which reads as follows: "We will replace at one-half price any plants which fail to survive for a period of six months after planting, provided account is paid according to terms, plants receive reasonable care and report of loss is made promptly. Should we not have the same plants, we reserve the right to apply equal credit to other plants selected." The association has had this replacement agreement printed in green on 2x3-inch stickers bearing the association seal, and members may purchase quantities for use on their invoices and estimates, etc.

Merchandising Aids.

The question, "What does the nurseryman need in merchandising and sales bulletin service?" had been posed by Howard Quadland, A. A. N. publicity director, as a suggested topic for discussion at the convention. Jesse Flory said that he thought the old-fashioned price list or catalog was almost extinct, partly because of the high cost of produc-



WILBUR I. NISLEY.

With the resignation of A. F. Meehan as secretary-treasurer of the Pennsylvania Nurserymen's Association after twenty-seven years of service, the executive committee selected Wilbur I. Nisley to take over the job. He is well experienced in the association's affairs, having served two terms as president, two as first vice-president and two as second vice-president and several years on the executive committee.

Mr. Nisley helped establish the firm of Walter, Nisley & Walter, Inc., landscape contractors and nurserymen, at Harrisburg, in 1928, after five years in commercial fruit, vegetable and nursery work.

Born in October, 1899, Mr. Nisley received his B.S. degree in horticulture at Pennsylvania State College in 1923. He is married.

tion. Now nurserymen are turning to other appeals, such as climate control and the "Plant America" program to sell jobs. Louis Wissenbach, of the Squirrel Hill Nurseries, Pittsburgh, said that, since the customer wants service today, the nurserymen should sell that, not just plants.

Mr. Boardman said that there should be increased use for "How to plant" and "How to care for" booklets, but some that were available needed modernizing. Customers are asking more questions, and, if little pamphlets with the answers are available, they will save the nurserymen a great deal of time. He mentioned the series of five pamphlets offered by the American Association of Nurserymen, and A. A. N. Secretary Richard P. White said that over 300,000 of these had been sold since they were first offered to members.

Many of the group thought that more information of self-service in the nurseries would be of help, in view of the current labor situation, which it appears will become worse instead of better.

Several said that because of the labor shortage it would mean curtailment of such work as lawn planting and building walks by some firms, and even discontinuing any maintenance service by others. Some wondered how they could gracefully tell customers that all they could do was sell and plant plants.

President's Address.

At noon the association adjourned for a group luncheon at which Mayor David Lawrence of Pittsburgh gave a short speech of welcome.

When the program was resumed in the afternoon, President Charles Boardman made his address, commenting on the increasing demand for nursery stock which should be evident in the near future. He pointed out that everyone was doing business on an inflated dollar and if income had been doubled, for instance, the true increase was not actually double value. He cautioned nurserymen to consider all items in overhead and to set prices in order to realize a fair profit. It will be a sellers' market again, but shortages of stock, materials and labor and higher taxes will be limiting factors to doing increased business.

President Boardman also commented on the growth of the Pennsylvania Nurserymen's Association, which was founded in 1904 at Lancaster. Ten of the original twenty-two members still belong to the association. A list of the charter members was printed in the 68-page

convention program, which also contained an excellent list of member firms, listing for each its representatives or officers, the address and phone, road location, nearest railroad, number of acres, year of establishment and specialties. Before World War II the association numbered eighty member firms, now it has 127 active members and thirty-four associate members. The increase in membership is evidence of the realization that a businessman just cannot do everything alone today; he must cooperate with his fellows. Mr. Boardman said that any nurseryman would carry insurance on his buildings and his home, not that he expected a fire, but in case of one he



Charles Boardman.

would be protected, and he likened membership in the association to insurance.

The Pennsylvania Nurserymen's Association has a group insurance plan, and, through the efforts of the association, the compensation insurance rate has been reduced from \$4 to \$1. Members may add new men to be covered so long as they are not over 60 years old.

At the conclusion of his address he presented a gavel to the association, which Secretary Meehan accepted on behalf of the group.

Effects of Mulches.

A talk on "The Effects of Mulches on Soil Tilth, Moisture, Temperature and Available Soil Nutrients" was given by Dr. Russell B. Alderfer, department of agronomy, Pennsylvania State College. Mulches are of two kinds, natural, such as cultivation to create a loose dry surface on the ground, or artificial, such as vegetable or mineral material ap-

plied over the ground. The conditions which a plant needs in proper quantity and quality, which can be affected by the use of mulches, are amount of light, soil tilth, water, heat, air and available nutrient and absence of injurious substances.

A crust should not be allowed to form on soil, or water cannot easily enter into the soil. A mulch corrects this situation, preventing evaporation and giving a blotter-like effect for soaking up water. With a chart, Dr. Alderfer showed that water intake was greatest with the use of a manure mulch, second with a sawdust mulch and least with just cultivation.

Dr. Alderfer said that tests had also been made to determine the effects of different mulches on soil tilth. This is measured percentage-wise by a soil aggregate analysis. In these tests, manure, giving fifty-one per cent soil aggregation, proved most effective in preserving good tilth. Other materials used and the percentage of soil aggregation resulting were oak leaves, forty-three per cent; corn stover, thirty-eight per cent; sawdust, thirty-five per cent; pine needles, thirty-two per cent; gravel, twenty-eight per cent; glass wool or rock wool, twenty-seven per cent; fertilizer, twenty-seven per cent, and an untreated check plot, twenty-five per cent. Straw gave about the same percentage of soil aggregation as the corn stover. No figures for peat moss were shown, but Dr. Alderfer said that peat moss washed off or blew off the soil after the first year.

In answer to the question of why manure and corn stover are effective in maintaining good soil tilth, the speaker said it was because of their effect on the soil microbes which were responsible for bringing about good soil aggregation.

At this point, Stanley Leonard told about the lawn aerator as an excellent machine for keeping a good soil tilth, and Dr. Alderfer said that work on this machine was started by Pennsylvania State College and told of a Pennsylvania firm which was making an aerating machine. Other machines are on the market.

Dr. Alderfer said that one had to use a mulch with nutrients if he expected to add nutrients to the soil. Of materials tested at the college, peat moss was the only one that increased acidity in the soil; sawdust did not. Plants will take up more phosphate when a mulch is applied to the soil. Straw, leaves and corn fodder mulches contain potash; so add this material to the soil. If the

[Continued on page 92.]

Public Throngs Exhibits at Virginia

By A. S. Gresham, Jr.

The twentieth annual convention of the Virginia Nurserymen's Association, held January 28 to 30 at the Hotel John Marshall, Richmond, established a record for a well balanced program that combined discussions of industry-wide problems and talks on the broad aspects of the principles and policies that affect the lives of Americans today.

Featuring the "Plant America" theme, the meetings were devoted to the practical phases of this slogan, by which nurserymen can aid in beautifying the home and the landscape and in conserving America's natural resources. Success of the convention was noted in that the educational exhibits were visited by an estimated 2,000 persons on the opening day, in the keen interest shown by nearly 200 registered nurserymen and guests who participated in the program and the panel discussions and in the adoption of a code of ethics. Nearly a dozen states besides Virginia were represented among the convention registrants, including New York, New Jersey, Connecticut, Massachusetts, Delaware, Maryland, Pennsylvania, North Carolina, Florida and District of Columbia.

Election Results.

Samuel D. Tankard, Jr., Tankard Nurseries, Exmore, was elected president at the business session Tuesday. He succeeds Moultrie H. Lanier, Colonial Farms, Inc., Richmond, who presided at the convention sessions. Other officers elected for the ensuing year include J. R. Richardson, Blue Ridge Gardens, Roanoke, vice-president, and Edgar M. Quillan, Waynesboro Nurseries, Inc., Waynesboro, secretary-treasurer. Mr. Lanier

was named chairman of the executive committee whose newly elected membership includes Charles Kennedy, Falls Church Azalea Gardens, Falls Church; Mrs. W. N. Roper, Arrowfield Nurseries, Petersburg, and W. L. Winn, Winn Nursery, Inc., Norfolk.

A. J. Shoosmith, Southside Nurseries, Richmond, chairman of the convention program, was chosen Virginia's nurseryman of the year for his outstanding contributions to the association and the industry. A landscape designer, Mr. Shoosmith served as president of the Virginia Nurserymen's Association in 1946. Since then his greatest efforts on behalf of the association have been devoted to the work of the education and promotion committee. With his father, Fred Shoosmith, he owns and operates the Southside Nurseries, located several miles south of Richmond.

Exhibits Well Received.

The 3-day convention was scheduled to open at 2 p. m. Sunday, January 28, with the registration of delegates and the opening to the public of educational and commercial exhibits set up in the main lobby and the mezzanine of the hotel. The public, however, began pouring into the exhibit rooms by 1 o'clock, and the stream of visitors continued long past the scheduled hour for closing the doors at 5 p. m. It is estimated that at least 2,000 visitors filed into the hotel to see the displays of plants and equipment. Although the final two days of the convention were reserved for the nurserymen and guests, a line of visitors continued to file into the exhibit rooms.

The three committees which arranged the attractive displays, which were praised by both the nurserymen and the public, were headed by H. M. Van Wormer, Richmond, commercial exhibits; Beverley K. Patton, Richmond, educational exhibits, and George Stockner, Richmond, decorations.

Educational exhibits featured the growing of plants, the control of pests and diseases of plants and landscape designs for private homes and public buildings. A decorative feature that attracted considerable attention was a miniature formal garden set up in the main lobby of the hotel.

Among the educational displays was one by Gresham's Nursery, Richmond, showing the propagation

of plants by grafting, budding, transplanting and other methods. Tools used in the operations were appropriately labeled and displayed. Another exhibit, by Mr. Van Wormer and his committee and Richmond superintendent of trees, W. M. French, displayed pest controls and a root-girdling menace that kills trees and large shrubs. At this booth were also displayed a handsome collection of wood samples for identification, literature on flora and other aids for fanciers of growing plants.

Virginia's state entomologist, G. T. French, and his department prepared an interesting exhibit of diseases and pests that afflict native trees and information on their control. The horticulture department of Virginia Polytechnic Institute had several exhibits, including one on field mice, and a large display of landscape designs and garden plans.

Commercial exhibits by twenty firms, including nurseries, seed stores, equipment and supply manufacturers and distributors, were a credit to the convention. On a larger scale than ever before, the exhibits this year hit a responsive note of appreciation and admiration from the convention delegates, the public and the press.

Talks on "Plant America."

Speaking on the subject "Plant with Vision," Dr. Richard P. White, executive secretary of the American Association of Nurserymen, Washington, D. C., keyed the convention Monday morning. Touching on the broad aspects of his subject, Dr.



S. D. Tankard, Jr.



A. J. Shoosmith.

White called on the nurserymen to visualize in their profession all its capacity to create a better America. He averred that working with soil and planting a garden has "a certain curative value and contributes to mental health, especially in times of tension and stress." He said that the nurseryman must have a vision of the contemplated planting project before it is started, even as a poet, artist or a sculptor envisions his masterpiece.

"Gardens must be planted for beauty and utility," Dr. White pointed out as he announced that "Liberty Gardens" will be inaugurated under the sponsorship of the United States Department of Agriculture. Comparable to the Victory gardens of the past war, they will be for the purpose of producing food for the table and for the spirit.

George S. Harris, Princeton Nurseries, Princeton, N. J., then spoke on "Plant for Better Production," cautioning nurserymen to avoid over-producing. Overproduction is costly and eats up the profits through the waste of labor, land and materials.

"To plant a better nursery industry requires modern education of superior quality," Dr. Wesley P. Judkins, head of the department of horticulture, Virginia Polytechnic Institute, stated in his talk. Declaring that basic objectives of modern education must include good training in a specific occupation, Dr. Judkins urged the nurserymen to learn more about their jobs in order to make better contributions to their industry and thereby improve the general welfare of the people. He said that basic educational objectives also must include a comprehensive knowledge of English and mathematics, a reasonable appreciation of arts, religion, literature and philosophy, and an ability to think and study for and by oneself.

Pointing out that the present generation of students constitutes the best yet, the educator told the convention delegates that the horticulture department at the institute had increased its office space, added three new laboratories and a new greenhouse and increased the teaching staff during the past year.

A Virginia state senator, Lloyd C. Bird, Richmond, was the luncheon speaker Monday, addressing the convention on the subject of "Planting with Courage, Patriotism and Conviction." An outstanding industrialist and a scientist, Senator Bird pointed out, "We cannot save the world by wars nor with American dollars," and he advised that the na-

tion cease being "tolerant and patient with communists within our midst." Quoting from the poem, "Trees," he concluded that nurserymen can lead their fellow citizens in planning and planting for a better America through "courage, patriotism and conviction, never losing the sight that spiritual values are necessary for progress."

Landscape Nurseryman Speaks.

Howard C. Taylor, Rosedale Nurseries, East View, N. Y., spoke on "The Landscape Nurseryman." The slogan "Plant America" was conceived as an inspiration to beauty and as an effort to conserve our natural resources, he said. The landscape nurseryman has a responsibility

to his community in perfecting "good designs which will not only improve the landscape, but will open up to him new jobs and new markets and contribute to his profits."

Noting that good landscape designers are hard to obtain today, he urged that nurserymen train new, young graduates and keep them for two or three years, during which time necessary skills can be developed and a balanced philosophy of work can be approached. Good men, specialists and laborers alike, can be retained if a firm offers an adequate salary, a pension and retirement program, an adjusted work week and year-around employment. Mr. Taylor suggested that nurserymen have an adequate advertising budget of approximately six per cent.

Planting for Profits.

Harold Seyler, Farr Nursery Co., Weiser Park, Pa., spoke on "Planting for a Profitable Business." Declaring that what is to be planted "tomorrow must be visualized and planned for at least five years previously," Mr. Seyler said that to have a profitable business a nurseryman must choose his selections to grow and sell as determined by his specific assets. These, he said, include acreage, labor supply, available capital, self-capacity for supervising the business and marketing the merchandise and necessary equipment to handle the total program. He recommended the keeping of a master record which will have all the pertinent facts about the quantity and quality of material on hand at all times, as well as about sales, demands and losses.

Mr. Seyler advised nurserymen to maintain neat and attractive places of business locations, to advertise adequately and not only to plant what readily sells, but also to sell what is on hand.

Before adjourning Monday afternoon, the convention heard A. R. Omphs, president of the horticultural club, Virginia Polytechnic Institute, explain the purpose of his organization. He said that the relationship between the club and the nursery industry is close because the former has within its membership the future leaders of the vocation.

Past Presidents' Banquet.

The banquet Monday night honored all the past presidents of the association, who were seated at the speakers' table. Introduced by President Lanier, Dr. Raymond B. Pinchbeck, dean of Richmond College, University of Richmond, at Richmond, spoke on "Planting with Opti-

[Concluded on page 81.]

VIRGINIA CODE OF ETHICS.

At a business session Monday afternoon a code of ethics, summarized in nine declarations, was adopted by the delegates and the incorporation of the association was announced. The code had been under consideration for the past two years, during which time changes and revisions had been made as the membership recommended, and the special committee headed by Charles Kennedy, Falls Church, edited the declarations. This code will serve as a guide in conducting business on a uniformly high level throughout Virginia:

We will conduct our business in an honest and straightforward manner and settle all obligations in a reasonable time.

We will make every effort to render satisfactory service to our customers and will not deliver stock to a customer that does not conform to samples or representations made, nor will we substitute varieties without the consent of the purchaser.

We will not offer our merchandise for sale at below cost of production for the purpose of destroying or hindering competition.

We will not falsely advertise our products or services.

We will not attempt to discredit our competitors or their merchandise.

We will recommend a fellow nurseryman when we cannot supply what a customer wants.

We will abide by the regulations of the office of the state entomologist as to certification of stock offered for sale and to standards of grading accepted by the A. A. N.

We will clearly state our conditions of sale or replacement and, in case of dispute, will make every effort to resolve the differences between us and our customers in a fair and reasonable manner.

We will regard the nursery business as an honorable and necessary profession, and conduct ourselves and our businesses in such a manner as to enhance the standing of our vocation in its public acceptance.

Michigan Honors Past Presidents

As part of their twenty-ninth annual convention held January 24 to 26 at the Pantlind hotel, Grand Rapids, members of the Michigan Association of Nurserymen honored their past presidents.

Harold E. Hunziker, M. J. Hunziker & Sons, Niles, was elected president to succeed Charles B. Greening, Greening Nursery Co., Monroe. John B. Light, Light's Tree Co., Richland, was elected to replace Mr. Hunziker as vice-president. Bernard Ward, Ward's Flower Ranch, East Lansing, was reappointed secretary-treasurer for his fifth term by the executive committee. J. Joseph Poleo, Ilgenfritz Nurseries, Inc., Detroit branch, and John Stark, Stark Nursery, Midland, both were reelected to the executive committee. William Conway, Pontiac Nursery Co., Romeo, is a new member of the committee, while Ernest Durrant, Durrant Nurseries, Grand Rapids, is the holdover member.

In the treasurer's report, Mr. Ward showed assets of \$2,447.26, with income for the year of \$3,428.75, and expenses of \$3,125.15.

In spite of the stormy weather, approximately 150 persons attended the annual get-together Wednesday evening, January 24, in the Continental room of the hotel. Music, dancing and informal entertainment were enjoyed.

Training Future Nurserymen.

President Greening opened the meeting Thursday with a few words of welcome and then introduced Harold Davidson, the new counselor for the 2-year training course in nursery management at Michigan State College, East Lansing. Of the three important production factors, men, money and materials, Mr. Davidson chose to speak of the importance of men. He stated that nurserymen cannot afford not to have a training program to improve physical skills of their employees, to find new ways of making better products at lower costs and to find new and better ways of selling products. Skilled men are one of the best means of obtaining satisfactory production and profit.

Colleges can help in developing the foundation upon which a student can build his knowledge, the speaker said. In addition, each nurseryman is an informal teacher while the student or young graduate is with him. It is up to the young man to produce and show a profit for the employer. When

he does, he should be rewarded accordingly.

So far seventy-two students have been graduated from the college training course, with fifty already placed in various positions in nursery firms. Five graduates now have established small nursery enterprises of their own.

Research and Experiments.

Dr. Roy E. Marshall, assistant director of the Michigan experiment stations, East Lansing, reviewed a number of the 300 projects that were under way at the stations. Of special interest to nurserymen is the strawberry-breeding work being conducted to develop a red-centered strawberry for freezing, similar to the

Marshall variety of the northwest. Work in the control of mold in small fruit also was a top project this past summer. Work on automatically controlled greenhouse and overhead irrigation has been most helpful for horticulturists in Michigan, some of whom have been considering themselves as living in a semiarid country. In agricultural engineering, he told of the forthcoming announcement of a new electrical applicator of charged dust, which uniformly covers both the upper and lower sides of the leaves in row crops.

Outlook for 1951.

C. A. Boyer, chief of the bureau of plant industry, Michigan department of agriculture, spoke about the increased danger of the Dutch elm disease in Michigan. He said his department hopes to be as successful in checking the spread, now in only one small section of Michigan, as it has been in controlling the spread of Japanese beetle within the state. Mr. Boyer is opposed to relaxing any control measures, and the association members went on record with him in adopting resolutions to this effect. After hearing a report of lax federal inspection of European plant material coming into this country, members agreed they did not favor any greater influx of foreign plants than now exists. Mr. Boyer, reporting on the action of the state association's executive committee in requesting his department to establish a voluntary certification program for dwarf understocks, said this program will be operated similarly to the most successful Michigan program of budwood certification that has been carried on now for several years. Michigan has 11,474 acres of inspected nursery stock, which required 17,862 calls from inspectors.

Climate Control.

In the afternoon, Dr. Joseph E. Howland, garden editor of House Beautiful magazine, gave an illustrated talk on climate control. Before starting his discussions, he related some firsthand information on a meeting held recently at Washington, D. C., on the "re-defense" garden program being considered for a wiser use of food.

Although the story on climate control has been written many times, the words of Dr. Howland bear repetition here: "Plants are the most im-

[Continued on page 61.]



HAROLD E. HUNZIKER.

The man who heads the Michigan Association of Nurserymen for 1951 has served the nursery industry well for many years. In 1937 he became secretary-treasurer of the Michigan association and held that office for ten years. After that he served on the executive committee and last year as vice-president. Since the organization of the National Landscape Nurserymen's Association in 1942, he has given it most capable and untiring service as secretary-treasurer.

Born at Kent City, Mich., in 1909, Mr. Hunziker comes of pioneer nursery stock. His grandfather, Alexander Hamilton, was for forty years head of A. Hamilton & Sons Nursery, Bangor, Mich., and one of the founders of the Michigan Horticultural Society. His father, M. J. Hunziker, continued a branch of that nursery at Kent City before moving in 1915 to Niles, Mich., where the business has since been operated as M. J. Hunziker & Sons, being continued after his death by Harold and his brother, Alex H. Hunziker. They operate as a landscape service, specializing in the development of small properties and estates in the Niles area.

Forty-fourth Ohio Convention

By L. C. Chadwick

The forty-fourth annual convention of the Ohio Nurserymen's Association attracted a good crowd to the Neil House, Columbus, January 25 and 26. Nurserymen from several states were in attendance.

Officers elected for the coming year were Lewis S. Bookwalter, Berryhill Nursery Co., Springfield, president; Charles Kohankie, Julius Kohankie & Sons, Painesville, vice-president, and Frank Turner, Berryhill Nursery Co., Springfield, secretary-treasurer.

New members of the executive committee are G. Brett Slemmons, Slemmons Gardens Nursery, Worthington; George F. Gens, North Ridge Nursery, Elyria, and Joe Strickfaden, Jr., Strickfaden Nursery, Sandusky. Holdover members for one more year are Carl Kern, Jr., Wyoming Nurseries, Wyoming, and James Scarff, W. N. Scarff's Sons, New Carlisle.

Economic Predictions.

The meeting was called to order by President G. Brett Slemmons shortly after 10 a. m. Thursday. The first speaker on the program was Prof. E. L. Bretz, department of agricultural economics, Purdue University, Lafayette, Ind., who discussed "The Economic Situation and Tomorrow's Market for Agricultural Products." He stated that the current situation presents a confused picture and the outlook is uncertain. We are in an inflationary period which will probably continue for a few years. Plans should be made for the future, but they must be flexible. He believes that there is no economic basis for rationing at the present. It destroys the incentive for production.

Professor Bretz continued by making some predictions. Among them were the following: The United States will not engage in full-scale war with China. If the Korean campaign cannot be stabilized, the United States will withdraw. The United States foreign policy will shift from one containing Communism to one containing Russia. Emphasis will shift from the Orient to Europe. Total war will not come in 1951 because neither side can now gain a final decision. Total conflict may come within five years, but it is not inevitable. War could come at any time. In any event, whether we have total war or partial war, we are in for a minimum of ten years of it. If total war comes, more drastic price

and wage controls will be imposed quickly. In the year ahead, the government's increased budget will be financed about one-half by new taxes and one-half by borrowing.

Considering the first half of 1951, Professor Bretz stated that markets would be nervous and jittery with the possibility of some temporary downward reaction. The general price level will rise, but not so rapidly as during the first three months of the Korean conflict or during De-

cember. Our economy is fully employed and the domestic demand is high, a different situation than existed in 1940 to 1942. Parity ratio may rise slightly. However, costs of materials, machinery and other scarce items may rise about as much as farm prices.

Concerning the longer-term outlook, from late 1951 to 1953, Professor Bretz made the following predictions: There will be five to ten per cent inflation yearly. If controls slow down inflation, but do not remove the cause, then inflation will come after controls, as they did in 1946 to 1948. The labor supply will be more critical. Farm profits will not increase relative to nonfarm opportunities, as in World War II, because we are beginning this period with the price structure in relative equilibrium, rather than with cheap farm prices.

The long-term outlook for agriculture, including the nursery business, is good. Do not expect to pay off obligations rapidly, because of taxes.

In closing, Professor Bretz suggested that any businessman not go overboard in changing a presently satisfactory operating plan on the basis of prospective price developments. If you have not yet made your needed improvements, make them right away, because it will be cheaper and easier than later. If you need more land to make a more economic unit, buy it now. Invest surplus funds in improving the productive capacity of your present setup. Plan for a 10-year pull and strike a balance between increased current production and future production.

The rest of the morning session was devoted to business activities of the Ohio Nurserymen's Association. Reports given consisted of those of the secretary-treasurer; of the legislative committee, by Thomas Kyle, Spring Hill Nurseries, Tipp City, and on the taxus herbarium, by Prof. L. C. Chadwick, department of horticulture, Ohio State University.

Varied Afternoon Session.

The afternoon session opened with a talk by Curtis H. Porterfield, administrative assistant, American Association of Nurserymen, Washington, D. C., on "General Topics of Interest to the Nursery Trade." He

[Continued on page 84.]



LEWIS S. BOOKWALTER.

President of the Ohio Nurserymen's Association for 1951 is Lewis S. Bookwalter, who has been president of the Berryhill Nursery Co., Springfield, O., since 1939. He had previously served the association as vice-president for one year, on the executive committee for two years and on the research committee for several years. He is also active in the American Association of Nurserymen, on whose committees for industry statistics and research he is currently serving, and in the Rotary Club.

Born in 1917 at Cincinnati, O., and reared there and in Westchester county, New York, Mr. Bookwalter is a graduate in business administration from Oberlin College, class of 1938. He is married and has a 7-year-old daughter.

Prior to 1934 Mr. Bookwalter worked part time at the Berryhill Nursery Co. for four years and in 1939 became president of the firm on the death of his father, Alfred G. Bookwalter, who had owned and operated the business from 1926 until his retirement in 1937. Mrs. A. G. Bookwalter had been an active member of the board of directors of the nursery and also had been chairman of the board of Willadean Nurseries, Sparta, Ky., until her death last year. Lewis Bookwalter is vice-president and secretary of the Willadean Nurseries. He also succeeded his father in operating the Lynn Guernsey Farms, adjacent to the nurseries at Springfield, from 1938 until 1946, when ownership of the farm changed.

Arborists' Day at Ohio Short Course

By Theodore F. Mathieu

The twenty-second annual short course for arborists, landscape gardeners and nurserymen offered by the department of horticulture of Ohio State University was held at the Neil House, Columbus, January 22 to 24. If one is to judge by the attendance, the course can be said to be the most successful yet. The average attendance at the lectures was 275. They came from fifteen states. Dr. L. C. Chadwick was congratulated on the fine organization of the program, particularly one so varied as to timely subject material.

"Climate Control with Trees" was discussed by Peter Cascio, West Hartford, Conn. He presented in detail, with suggestions for selling approaches, the material with reference to cooling or warming the environment of a home by the proper use and planting of trees and shrubs. The scientific background for the use and application of plants in such a manner was elaborated in House Beautiful magazine some time ago. A plan showing the uses and reasons for using was passed out to everyone, and the talk followed the plan with slides to illustrate the points emphasized.

Tree Diseases.

"What's New About Dutch Elm Disease, Phloem Necrosis and Oak Wilt," was told by Roger Swingle and T. W. Bretz, division of forest pathology, and John F. Wooten, bureau of entomology and plant quarantine, United States Department of Agriculture.

In general, the status of the diseases reported on continues as it has been for some time. The importance of such a report is largely a resume of the difficulties involved in accumulating sufficient factual material on methods of control, how the

diseases are disseminated, and a search for new tree types that will withstand the attack of the disease in question.

The methods of control are largely restricted to the use of DDT for the insect vectors of the diseases. The insect which spreads the Dutch elm disease is the elm bark beetle, both the European and American; the vector of phloem necrosis is the small leaf hopper, and the vector or vectors of the oak wilt are not yet known. All three are spread in some measure from tree to tree through root grafts where the root systems occupy the same space underground. All three diseases are spreading slowly in all directions from the periphery of their present know distribution. Isolated specimens have been found as much as 100 miles or more from the intensively infested area, and it is not possible to say how these "jumps" occur. Complete details are available in bulletins of the U. S. D. A. from the Government Printing Office, Washington, D. C., or from various state agricultural experiment stations.

Half Century of Tree Work.

E. W. Higgins, of Frost & Higgins Co., Arlington, Mass., explaining that he was rather young to have been in active tree and landscape work for fifty years, introduced a "Mr. Observer" to report for him. Mr. Observer then gave an interesting account of the development of the Frost & Higgins Co., its origin and development and the major changes of tree care as they occurred during the past fifty years.

Harold L. Frost, after graduating in 1896 from Massachusetts Agricultural College, where he received training and inspiration from Dr. George E. Stone, set about forming

an organization whose primary interest and motto was "The Care of Trees." The organization maintained branch offices in several of the larger cities along the eastern coast of the United States to Baltimore, Md.

In 1905 the firm of Frost & Bartlett was organized and prospered for some time. Mr. Frost believed that the best results in the care of trees could be procured by a small and intensive local organization. Consequently, all the branch offices were closed, and the firm was reorganized as H. L. Frost & Co. Mr. Higgins' first connection with the company was in 1910. He later became a partner and in 1940, upon the passing of Mr. Frost, became the head of what was then known as the Frost & Higgins Co. The present corporate setup includes Mr. Higgins and his partners.

Mr. Frost, during his active participation in the company, was in the forefront in combating the ravages of the gypsy moth and brown-tail moth. Some time later came the development of cavity work and the materials used for filling the cavities. Much time and study were expended in developing a tree fertilizer. One was developed that Mr. Frost felt answered the requirements of good tree growth and development. It contained seventy-five per cent organic matter.

The next major development was tree transplanting. The demand for transplanted trees stimulated the development of equipment to move trees as large as those with a 40-inch diameter.

A short resume of the importance of the trained technician and his contributions to the improvement in shade tree care was made by Mr. Observer. He stressed the difficulties

[Continued on page 81.]



Panel for arboricultural clinic at Ohio short course. Left to right: R. B. Neiswander, Peter Cascio, Paul Tilford, T. W. Bretz, Roger U. Swingle and John F. Wooten.

Landscape Gardeners' Day at Ohio

By Jack D. Strader

The second day of the twenty-second annual short course arranged by the department of horticulture of Ohio State University was devoted to landscape gardening. Tuesday morning, January 23, Victor Ries, extension floriculturist at Ohio State University, spoke on garden lilies. He first explained that lilies available today are, to a considerable extent, hybrids that have been developed in the past decade or so. This development has been possible through the use of multiple chromosome strains, called polyploids. These were obtained partly by selection, but to a considerable extent through the use of colchicine.

The lecture dealt with varieties, for the most part, and it was accompanied by the showing of colored slides. His choices of lilies were the Preston hybrids, Rainbow hybrids, Fiesta hybrids and Mid-Century hybrids. Mr. Ries' advice to nurserymen was to consider the publicity that is currently being given the Cascade strain of the Madonna lily, as well as the Olympic, Mid-Century, Fiesta and Rainbow hybrids. It is his opinion that customers will be asking for them in preference to some of the older varieties. It should also be noticed that there is a new attempt to popularize concolor, margaritatum album and amabile luteum.

Flowering Crab Apples.

John C. Wister, landscape architect at Swarthmore College, Swarthmore, Pa., spoke on "The Best in Flowering Crab Apples." He described the flowering crab apples as trees for every use. This is possible because of the variation in size from the small floribunda types to the tall baccata types. From the botanical viewpoint, he explained, there is great confusion in classifying the different species and varieties. No distinction is made between crab apples for ornamental use and those grown for fruit. Furthermore, no rigid distinction is made between crab apples and apples.

By horticulturists crab apples are considered to have fruit less than two inches in diameter. They also classify flowering crab apples in two categories, Asiatic types and American types. The Asiatic types are earlier-flowering than the American types and, as a rule, have smaller and more numerous flowers. The fruits of the Asiatic types are excellent and have a wide size range in

a variety of colors. Fruits on American types are, for the most part, larger and are usually a dull green color. Mr. Wister made an interesting comment concerning the trueness to name of the flowering crab apples. According to one source of information, fully seventy-five per cent of the trees available in the trade are not labeled correctly. This is because many species do not come true to type from seeds. Hupehensis and toringoides are the only two species that come true from seeds.

Mr. Wister recommended that, while crab apples can be used as lawn specimens, they are usually used with more effect in shrub borders as a background. Since the smaller and medium-size clones and hybrids are used in most gardens, the following are recommended for planting where limited space or a small tree is desired: Dwarf clones or hybrids of *Malus baccata*, hupehensis, atrosanguinea, floribunda, arnoldiana, zumi calocarpa, zumi Bob White and sieboldi, along with its taller-growing form, arborescens.

In the medium-size group, the following were recommended: *Malus pumila* Niedzwetzkyana, *Malus purpurea* and the varieties eleyi, Ledmoine and, the latest, Aldenham. To add a few of the novelties, Kingsmere, Makamik and Wabiskaw may be used. Because of the dark and rather dingy colors of a few of these varieties, use them with plenty of light colors and other pleasing flower color combinations. An example to avoid is the combination of the pink-flowered hybrids of *Niedzwetzkyana* with the yellow flowers of *forsythia*. However, such plants as *Spiraea prunifolia* make an effective contrast.

The larger varieties recommended were Red Tip and Wynema, which are believed to be varieties of *ioensis* and *Niedzwetzkyana*.

In discussing propagation and diseases of crab apples, Mr. Wister again emphasized the necessity of propagation of all species but *toringoides* and hupehensis by grafting or budding. According to some authorities, the short life of Bechtel's crab apple is due to the incompatibility of the stock and scion. Many believe it should be grafted on *ioensis* seedlings and planted deeply to encourage the scion to develop its own root system. Either winter grafts or summer buds should make eighteen

inches to three feet of growth the first year. Within two to three years they may be planted in a permanent location. Since *Malus toringoides* is subject to fire blight in certain sections of the country, it will be limited in use. Bechtel's crab is susceptible to cedar-apple rust and scab, and, because of its susceptibility to these diseases, its use should be restricted, said Mr. Wister.

In culture, he recommended the use of good soil and the removal of suckers from the stock. He warned that crab apples should not be pruned like orchard apples. The removal of cross branches is adequate. The removal of the lower branches should not be practiced, as this removes part of the beauty of the crab apple tree.

Lawn Maintenance.

Considerable interest was manifested in the talk on lawn maintenance given by William E. Lyons, greenkeeper and garden supervisor of employees' garden program for the Firestone Tire & Rubber Co., Akron, O. The different varieties of grasses that have been successful in the Akron area were discussed, along with cultural practices.

Mr. Lyons is a strong believer in soil and foliage analysis in determining nutrient content. He uses a combination of the Purdue and Spurway systems in determining soil analysis and the Bray plant tissue test for foliar analysis.

He stated most emphatically his preference for subsoil to work with, rather than addition of topsoil. His preference for subsoil is caused by the fewer number of weed seeds encountered. By adjusting the pH of the soil from 6.2 to 6.8 and supplying quantities of available calcium and magnesium along with other nutrients and a commercial product, which is a by-product of the steel mills, called Agri-Slag, he has been able to establish many successful lawns.

Mr. Lyons recommended aerifying the soil in the spring and cautioned against the use of heavy rollers on wet soils.

To assure good color and sufficient growth in the spring, Mr. Lyons recommended that Agri-Slag be applied during the winter at the rate of one pound per square foot. Uniform application of the material at that time assures penetration of the material

(Continued on page 90.)

Nurserymen's Day at Ohio Course

By B. C. Smith

Nurserymen's day at the Ohio short course, January 24, at Columbus, began with a panel discussion conducted by Dr. L. C. Chadwick on chemical weed control in nurseries. The other members of the group were Lewis S. Bookwalter, Berryhill Nursery Co., Springfield, and Carl E. Kern, Jr., Wyoming Nurseries, Cincinnati.

Chemical Weed Control.

The amine salt of 2,4-D (2,4-dichlorophenoxyacetate) is most widely used. This material can be used to spray plots of taxus and other evergreens, provided there are no tender shoots present. On the other hand, the ester has not been found to be practical for this type of spraying.

During the winter 2,4-D may be used with 2,4,5-T (trichlorophenoxyacetic acid) in kerosene to form an emulsion to give good control on woody trees and shrubs. The brush and trees are cut off at a height of six to eight inches, and the stumps are sprayed. In the springtime oil is substituted for the kerosene in order to obtain better penetration into the stumps.

The 2,4-D has also been sprayed on seedbeds to control weeds before the seedlings are above the ground level. After seedling growth is visible, no further treatment should be given.

The sodium salt of TCA (trichloroacetate) at the rate of twenty to forty pounds per acre is excellent to rid land of quack grass. Ample time should be allowed for the TCA to be dissipated and leached from the ground before crops are planted. Soybeans can be used as a test crop. Some perennials have been planted as soon as seven weeks after the TCA application and no damage

was observed. In order to get rid of broad-leaved weeds before planting a crop, 2,4-D can be used.

Last spring the sodium salt of TCA was applied on 1/4-acre plots at the Joseph F. Martin Co. nursery, in Lake county. There were two replicates for each treatment. It was applied at the rates of twenty, forty, sixty and eighty pounds per acre. The plots were crossed by diskings—some every two weeks, others every month, one only once during the summer—and one was not disked at all. The experiment continued from the spring until August 1, during which time observations were made. All rates of application killed the quack grass. It has previously been observed, however, in other tests that more TCA is required when the land is not plowed before application.

Where the sections were disked only once during the summer there was good quack grass control, but considerable growth of ragweed, horse nettle and thistle was observed is not plowed before application is made.

In the sections where there was no cultivation, there was good quack grass control, even at the twenty pounds per acre rate, but weed growth, particularly ragweed, was abundant. Applications of twenty to forty pounds of TCA plus disking once a month gave good control of quack grass and other weeds.

Plantings of hemerocallis, kniphofia, iris and Elder daisy were made August 1, and no damage was observed, even on the plot where eighty pounds per acre was applied.

Stoddard's solvent with allyl alcohol has given good weed control on seedbeds in Wisconsin and Minnesota. It is usually applied two or three times during the year. White spruce, *Picea glauca*, is very sensi-

tive to the mixture; so it should not be used on these seedlings. The toxicity is prevalent at least for seven to ten days after applying to the soil. Both substances are highly inflammable, volatile and very toxic to the skin; so they should be handled with caution. When an operator handles allyl alcohol, gloves and masks should be worn for protection. In fact, it is more poisonous than chloropicrin, which is used as a wartime gas.

Allyl alcohol is usually applied first to the soil to sterilize it, and the Stoddard's solution is applied afterward.

Goldenrod can be readily killed by allyl alcohol when it is sprayed on the weed during the early seedling stage. By spraying early in the season, all of the waste of the rank-growing weed of later summer is eliminated. It was observed that annuals were much easier to kill than perennials, and a less concentration could be used.

Dowfume MC-2 has been used on tobacco seedbeds with good results, but considerable labor is involved in applying it. It has also been used successfully on potting soils.

Ammate was used more frequently in the past than now. It has been useful for spraying hedgerows and driveways.

Chloropicrin has not been popular. The results have not been satisfactory. It is too volatile to use freely because the drift will kill nearby plants. The average cost of application is about \$600 per acre.

Borax and cyanates give excellent control of weeds on driveways and parking lots. Borax is preferred to cyanates because the borax is much easier to apply.

A spray made from the plant growth regulator, maleic hydrazide,

[Continued on page 22.]



Panel for nursery clinic at Ohio short course. Left to right: R. B. Neiswander, Kenneth Haysler, L. C. Chadwick, Lewis S. Bookwalter, Carl Kern, Jr., John L. Creech and John D. Siebenthaler.

New Jersey Attendance Shows Increase

By L. C. Schubert

Attendance at the annual mid-winter meeting of the New Jersey Association of Nurserymen, held February 2 at the Stacy Trent hotel, Trenton, was the best in some years, reflecting the increased interest of the nurserymen of the state in the work of their organization. When President Fred Noble called the morning session to order, roll call revealed 141 persons present, representing forty-one firms.

Officers elected for the ensuing year were: President, Gerard Grootendorst, Oakland; first vice-president, William Wells, Jr., Millville; second vice-president, Samuel Blair, Nutley; treasurer, August Kindsgrab, West Orange. Elected to the executive committee were Albert Flemer, F. & F. Nursery, Springfield; Ed Wyckoff, J. H. Schmidt & Son, Milburn, and Russell Bettes, Piedmont Landscape Co., Princeton.

After President Noble spoke a few words of appreciation for the members' help during his term in office, at the conclusion of the afternoon session, William Wells, Jr., took over the gavel in the absence of Gerard Grootendorst, who was kept away by illness. L. C. Schubert acted as secretary pro tem, in the absence of R. P. Korbobo.

Business Session.

At the morning session, William Howe, Jr., reporting for the legislative committee, stated that there was no controversial legislation at present, but several bills were being followed, particularly one referring to the development of parking and picnic areas along highways.

Charles Hess called attention to the fact that a landscape course which had been developed and sponsored by the nurserymen and which had been approved at Rutgers University could not be instituted until funds were provided. It was suggested that the legislative committee meet with Dr. Martin at an early date to see that such funds were included in the next budget.

For the membership committee, Otto Bergman reported a current total of ninety-five members and six applications for membership.

George Jennings, for the better standards committee, gave a brief report, stating that the committee was continuing its work and that a small group of nurserymen was trying to work out the problem along the lines laid out by the committee.

Dr. Clyde Hamilton announced that, because of illness, he had been unable to complete three sessions of the course on insect injury which he started last fall for the Metropolitan Nurserymen's Association and the arborists. These three sessions will be held in March, and notices will be sent to interested persons.

A. A. N. Activities.

Dr. R. P. White, executive secretary of the American Association of Nurserymen, recommended that members make use of the news-letters which are sent out periodically



Gerard Grootendorst.

from the Washington office and also the market development letter called "Dividends." The "Plant America" program has been successful; ten state governors have proclaimed state planting programs, and California will follow this spring. He expressed the hope that New Jersey would be included.

He asserted that nursery stock is a necessity and we should have no hesitancy in promoting its planting even in these critical times.

Dr. White then touched briefly on conditions on the national scene. He stated that there was a great deal of confusion in Washington, but since Charles Wilson had been called in, there had been considerable improvement. He gave as his opinion that the price freeze will have a lot of thaw. Nursery stock is exempt from price control if sold by the producer. Buyers and sellers are permitted to follow percentage or dollar mark-ups used in previous practice.

Wages at present are frozen across the board. In his opinion, material will get much tighter, and he urged maintaining a normal working inventory. Manpower will be the greatest bottleneck, and he expects most young and able-bodied men to be called into the army. Nurserymen should make plans for replacing this type of help with women and imported labor. He foresees a great demand for nursery stock because of the volume of swollen payrolls and the lack of other items. A national program of gardens will again be promoted, called liberty gardens.

R. J. Abbott, highway commissioner of the state of New Jersey, had been scheduled to speak at the luncheon, but was kept from the meeting by illness in the family. President Noble called upon Oliver Deakin, parkway engineer, to say a few words, and he called attention to the fine exhibit in the lobby and told of the progress of various projects throughout the state.

Speakers at Afternoon Session.

Herbert W. Voorhees, president of the New Jersey Farm Bureau, was the first speaker in the afternoon, and he emphasized that we, as citizens, face the greatest challenge ever faced by any people of all time. How we measure up to our responsibilities will determine if we can remain free. He pointed out that with costs rising in government it is necessary to be realistic and eliminate all unnecessary spending.

George W. Luke, professor of agricultural economics at Rutgers University, stressed that effective words and action are necessary to good salesmanship and that salesmanship will still be needed to sell the liberty gardens and our products. He stated these points were necessary: 1. Listen to the customer's story. 2. Give him a plan to work by. 3. Appeal to motives of pride and ownership. 4. Give quality. 5. Be sure to advertise.

L. G. MacNamara, superintendent of wild life management, division of fish and game, told of the best methods of control of the four animals most likely to injure nursery stock; namely, deer, rabbits, ground hogs and, believe it or not, beavers.

Meeting Places.

Walter Ritchie, who had just been elected a member of the state farm [Concluded on page 59.]

North Carolina Short Course

By E. H. Tinga

The oldest of the short courses given at the school of agriculture of North Carolina State College is the annual one for nurserymen. The fourteenth of these was held January 10 to 12 at the Y.W.C.A. auditorium, at State College, under the sponsorship of the North Carolina Association of Nurserymen in cooperation with the department of horticulture and the division of college extension. Over the auditorium stage hung the large "Plant America" banner of the American Association of Nurserymen, secured for the 3-day meeting by Walter Campbell, Greensboro.

Association Officers.

The officers elected by the North Carolina Association of Nurserymen to serve for the ensuing year are James Melton, New River Nursery, Hubert, president; Dan Reynolds, L. A. Reynolds Co., Winston-Salem, vice-president, and E. H. Tinga, Tinga Nursery, Castle Hayne, secretary-treasurer.

M. E. Gardner, head of the department of horticulture, opened the meeting. He announced that Harold Daniels, of Mecklenberg Nurseries, Charlotte, president of the state association, would be unable to attend because he was in a hospital at Charlotte. Mr. Gardner then introduced J. W. Harrelson, chancellor of North Carolina State College, who gave the welcoming address.

Soil Fumigants.

The first speaker on the program, Howard Garriss, extension plant pa-

thologist, talked on soil fumigation by the use of chemicals. The first chemical he discussed was chloropicrin, one trade name for which is Larvacide. The approximate dosage per acre is twenty-eight gallons, applied by injecting it five inches into the soil, at 12-inch intervals, with a special applicator. The cost is rather high, about \$350 per acre, but it has shown the best results of any of the chemicals tested, he said. Chloropicrin has given good results against root knot nematodes, fungus and bacterial diseases, and fair results against weed seeds. After fumigating the soil with chloropicrin, the waiting period before planting is not less than fifteen days.

The next chemical he discussed, dichloropropene - dichloropropane mixture, is sold under such tested trade names as D-D and Dowfume N. The approximate dosage per acre is twenty gallons, costing about \$40 to \$50. This chemical is applied the same as chloropicrin, and the waiting period is the same. The mixture has given good results against root knot nematodes, but poor results against fungus and bacterial diseases and weed seeds.

Ethylene dibromide, trade names for which include Dowfume W-40, Iscobrome D-42, Iscobrome D and Garden Dowfume, costs approximately \$40 to \$50 per acre, and gives good results against root knot nematodes, but poor results against fungus and bacterial diseases and weed seeds. The method of application is the same as for the two fumigants previously discussed; the wait-

ing period is not less than ten days, but a 20-day wait is preferred.

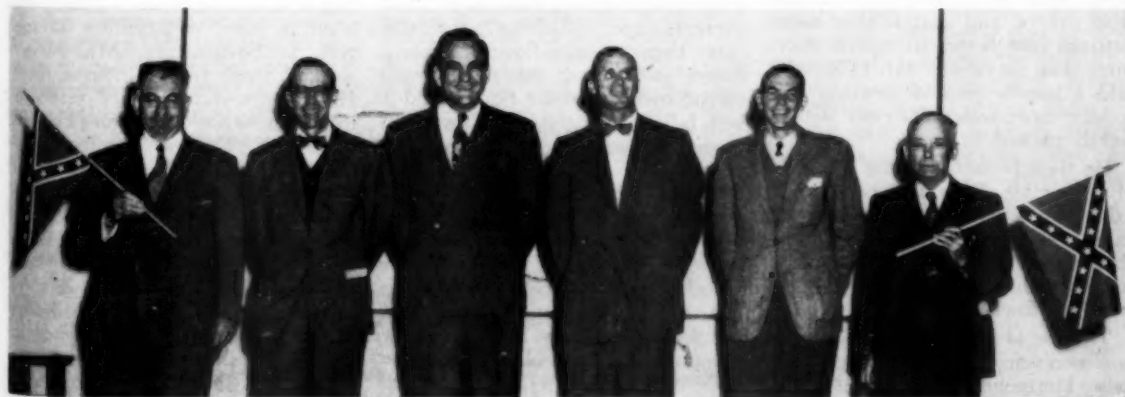
Urea, trade name tested as Uramon, was the fourth chemical mentioned. The approximate dosage per acre is 2,400 pounds, and the approximate cost is \$125. The method of application is to broadcast, then spade or disk into the upper six inches of soil. Urea's effectiveness against root knot nematodes and weed seeds is good, but it is rated only fair against fungus and bacterial diseases. This treatment sometimes results in decreased yields in the first crop. This harmful effect is often lessened on some crops by applying organic materials such as peanut-hull meal and cottonseed meal at the rate of one pound per square foot, and manure, four pounds per square foot. The waiting period before planting is ninety days.

Methyl bromide, a trade name for which is Dowfume MC-2, gives good results against bacteria, fungus and weed seeds. Equipment needed to apply this is a gasproof cover to hold the gases to the ground. Soil temperatures should be from 45 to 70 degrees Fahrenheit to derive the best results from the soil fumigants, he said.

Mr. Garriss then showed colored slides of various types of equipment used in applying the materials, including hand applicators, a wheelbarrow device powered by two men and tractor-drawn equipment.

Propagation Methods.

F. L. O'Rourke, professor of horticulture, Michigan State College,



Some of the speakers at North Carolina nurserymen's short course and some of the officers of the North Carolina Association of Nurserymen. Left to right: F. L. O'Rourke, M. E. Gardner, J. B. Gartner, speakers; L. A. Reynolds, vice-president; E. H. Tinga, secretary-treasurer, and W. E. Campbell, chairman of board of directors.

East Lansing, spoke on methods of propagation. Mr. O'Rourke thinks that a nurseryman in the retail trade should carefully consider before he invests in propagating beds. It might be cheaper for him to buy lining-out stock, since he has to devote such close attention to the job to be a successful propagator.

The coldframe is the cheapest method as far as material for constructing beds is concerned, he said, and the correct construction is important. Mr. O'Rourke suggested one way to construct a coldframe is to excavate soil to the depth of fifteen to twenty-four inches, place about three to five inches of gravel in the bottom in order to have good drainage and then put in the rooting medium. He said it did not make a great deal of difference what kind of medium was used, because it is the man and not the medium that counts. Propagators use various mixtures of sand, peat and vermiculite; some pack their sand and sand-peat mixtures and some do not, and both have good results.

The propagator learns by failures, and he has to pick the medium that works well for him. Coldframes in the ground have great possibilities; they keep the cuttings cooler in the summer and warmer in the winter. Putting burlap rolls around the edges of the frames will keep the moisture-laden air under the glass. If there is good drainage, the nurseryman need not be afraid of overwatering. Good drainage is most important because a water-soaked stem will rot.

Another way to construct propagating beds is to elevate them above the ground. If this method is used, more shade will be required to keep the beds cool during the summer. A rooting medium with a high oxygen content is needed. Some varieties of plants seem to require more oxygen than others, and that is why some cuttings root better in certain mixtures than do others. Mr. O'Rourke said a loosely packed medium will require more water than one that is tightly packed.

He then brought up the question of using glass. Tests have been made using screen wire painted to give the right amount of shade and have shown good results. It is much easier to water through the wire than to raise and lower the glass.

The use of hormones in rooting is not necessary, although they will help. Hormones will not root cuttings that cannot be rooted in conventional ways, but are used as a matter of insurance against adverse

conditions and to speed up the rooting period.

The callus on cuttings has no relation to rooting, since most roots come from the side of the stem and the callus takes in water to keep the cutting alive while the roots are being formed. Mr. O'Rourke stated that it is not necessary to make a long cut on the bottom of hardwood cuttings, but the callus formed on this cut will allow more water to enter.

Slides were shown that demonstrated various methods of propagation and the construction of coldframes.

The question-and-answer period was conducted by J. B. Gartner, extension specialist in ornamental horticulture. Questions, answered by nurserymen and the college faculty, covered such subjects as North Carolina's free soil-testing service, the use of fertilizers, growing plants from seeds and the care of field-grown evergreens.

Camellia Petal Blight.

Dr. Frank A. Haasis, associate plant pathologist, talked on camellia petal blight, which was first recorded in Japan in 1920. Diseased camellias were recorded in California in 1940 and have been found since then in Oregon, on the Gulf coast and on the Atlantic coast. The only inland place in which blight has been reported is Atlanta, Ga., in a private garden.

The organism is similar to azalea petal blight, and Dr. Haasis told the nurserymen about the life cycle of the organism. The blighted flower will fall from the plant to the ground, and then the fungus will go through a maturation period. At the completion of maturation, spores of the fungus are ready for discharge to bring about inoculation and subsequent infection of camellia petals. The spores are ejected, and wind currents and splashing rain will carry them to open flowers. After a flower is infected, the disease will spread over the entire flower, and it will fall to the ground. This is an annual process. The estimated temperature for the spores to cause infection is at 50 to 60 degrees, and the flowers are usually blooming at the time of year when these temperatures prevail.

Early and late-blooming camellias may escape infection, but this does not mean that they are necessarily immune. They just bloom when the moisture and temperatures are not right for infection. The flower is the only part of the plant that is affected; the disease does not hurt the

foliage nor branches. The fungus can remain dormant in the ground or on litter for one or more years. If cuttings are taken from a plant that has had infected flowers, there is no danger that the cuttings will carry the fungus.

To stop the spread of the blight, Dr. Haasis said, prevent diseased flowers from falling on the ground or pick them up as soon as they fall. He suggested that the nurserymen could spray the flowers with one and one-fourth pounds of Dithane or one pound Parsate to 100 gallons of water three times a week. To kill the fungus on the ground, spray with Elgetol, one to 100 of water by volume. Calcium cyanamide, 200 pounds to the acre, also can be used. To transfer plants from infected areas, wash all the soil from the roots; there seems to be no possible way to transport the blight if the camellias are bare-rooted this way.

C. H. Brannon, state entomologist, brought the nurseryman up to date on the camellia petal blight, white-fringed beetle and Japanese beetle quarantines. There have been two new infestations of the white-fringed beetle. The Japanese beetle situation

[Continued on page 69.]

JAMES S. MELTON.

The new president of the North Carolina Association of Nurserymen, James S. Melton, is in charge of all landscaping work at Camp Lejeune, N. C., the United States Marine Corps training base. He has been engaged in work at Camp Lejeune since 1945 and has grown more than 200,000 azaleas solely for beautification of the base. He has established at the base a 20-acre nursery of a general line of nursery stock for beautification of all marine bases on the east coast.

Following his graduation from North Carolina State College, Raleigh, in June, 1939, with a B.S. degree in horticulture, Mr. Melton worked from June, 1939, to April, 1942, for several florists' establishments, including Patterson's Flowers, Shelby, N. C., and Scholtz Greenhouse, Charlotte, N. C., two of the largest wholesale growers of florists' crops in North Carolina.

In 1942 he entered private estate work as manager of a large farm and also did maintenance work for private estates. He remained in this type of work until 1945, when he started his work at Camp Lejeune. Today Mr. Melton also operates his own business, New River Nursery, at Hubert, specializing in azaleas for florists.

Western New York Meeting

By A. L. Synesael

The annual meeting of the Western New York Nurserymen's Association, January 26, at the Hotel Sheraton, Rochester, was opened by President Merton Congdon, North Collins, who reviewed the group's activities of the past year and remarked on the projects to be undertaken during the coming year. He stressed the importance of every member's making an effort to help increase the membership. He stated that various committees would be needed throughout the year and asked wholehearted support of members when called upon to serve. The reports of the secretary and treasurer, A. L. Synesael, were then read and approved.

Robert Auld, Auld's Garden Shop, Kenmore, was elected president for 1951. Other officers for the ensuing year are A. L. Synesael, Jackson & Perkins Co., Newark, N. Y., and Allyn P. Hoffman, Hoffman Nursery Co., Elmira, both vice-presidents, and Roger Bagley, secretary-treasurer.

Holdovers for a second year as directors to the New York State Nurserymen's Association are E. B. Stedman, Stedman Nurseries, Newfane, and John Kelly, Kelly Bros. Nurseries, Inc., Dansville. R. L. Holmes, Jackson & Perkins Co., and Howard Maloney, Maloney Bros. Nursery Co., Dansville, were elected to 2-year terms as directors to the state association. Alternate directors are Mr. Auld, M. L. Congdon, Congdon's Wholesale Nursery, North Collins; L. J. Engelson, C. W. Stuart & Co., Newark, and Edward Monin, Sheridan Drive Nursery, Kenmore.

Dr. A. B. Buchholz, director of the New York bureau of plant industry, Albany, gave a concise report on important up-to-the-minute subjects. He stated that no new quarantines are expected soon, and he did not think there would be any extension of the presently controlled areas. He asked that every care be taken by nurserymen to prevent spread of any pests in their locality and asked for complete cooperation with local inspectors. He warned that the inspectors are tolerant, but necessarily firm in the discharge of their duties. In closing his remarks, Dr. Buchholz announced that he would retire March 1.

Dr. William Snyder, associate professor of horticulture, Cornell Uni-

versity, Ithaca, related the progress of his research work in plant propagation and hardiness.

Dr. F. L. Gambrell, New York agricultural experiment station, Geneva, proffered valuable information for the control of nursery pests. He stated there is much need for information on the efficiency of the newer aracides or miticides now appearing on the market. Wide claims are being made for some of these materials.

For the control of European red mite, he suggested the Dow Chemical Co. product K-6451 and EPN-300, both good from a residual point of view, while such materials as Parathion, Dimite, Meticide and Karathene show promise as contact poisons or for immediate kill of the pest in its active stages.



ROBERT AULD.

After serving as a vice-president of the Western New York Nurserymen's Association for the past year, Robert Auld was advanced to the office of president last month. He has been active in the direction of the association since 1947, when he was elected an alternate director. He was chosen a director the following year.

Born in Scotland, Mr. Auld came to the United States with his parents in 1906 and settled at Buffalo, N. Y. At the age of 18 he started work as an apprentice gardener on a private estate and after several years entered the commercial landscape field. He followed this work until 1942, when he and his wife opened a nursery salesyard and garden supply shop called Auld's Garden Shop, at Kenmore, N. Y., a suburb of Buffalo.

As the business grew, a wing was added to the original building, a small greenhouse was erected and additional adjoining property was acquired. The Aulds now have a 250-foot frontage, 12,000 square feet of parking area and 8,000 square feet of lath house.

For soil-inhabiting grubs, such as strawberry weevils and taxus root weevils, DDT, BHC and Chlordane show promise against the adult weevils. For the European chafer grub, DDT at the rate of fifty pounds to the acre gives excellent control on turf plantings and on evergreen plantings in the nursery.

Aphis control measures are of two types, either dormant treatments of dinitro sprays against the eggs for such pests as the viburnum aphis or summer spray applications during the growing period on rosebushes and many other types of plants. The apple woolly aphis is another problem, for this species may overwinter either as an egg on elm trees or on the roots of apple trees in the nursery. For this reason, there is no assurance of control from the use of dormant dinitro sprays alone. The best evidence to date indicates that frequent summer applications of BHC are needed to prevent a build-up of the insect population on the tree above and below ground level and subsequent damage to roots. Experiments are still in progress on the use of BHC. Substantial reduction in infestation and a high per cent of salable trees have resulted when apples were sprayed with a BHC program on 1 and 2-year trees.

Prof. Donald J. Bushey, extension specialist in ornamental horticulture, outlined completely the project on homestead and Grange hall improvement in 1951 to be sponsored by the New York State Grange. He stated it was suggested to him at the New York State Nurserymen's Association's meeting at New York early in January that a committee be appointed from the western New York group and that some Grange hall in this section be selected and landscaped by the nurserymen. Professor Bushey showed colored slides depicting what bare grounds around Grange halls and homes could look like after they were properly landscaped. He urged nurserymen to take advantage of the unsolicited action of the Grangers to make landscaping of their grounds a project for 1951.

At this point a recess was called, and, after an hour of good-fellowship, luncheon was served on the Starlight roof of the hotel.

The afternoon session was opened with a talk by Valteau C. Curtis,

[Concluded on page 65.]

First New York Arborists' School

By A. M. S. Pridham

The first New York arborists' school was held at Cornell University, Ithaca, January 15 and 16, with some seventy-five practicing arborists in attendance from New York, Pennsylvania, Connecticut and Rhode Island.

A hearty banquet Monday evening was a popular feature of the program. "Your Future in Trees," a training film supplied by the Davey Tree Expert Co., Syracuse, was shown, and entertainment was furnished by Cornell Shows, a unit of the Cornell student Red Cross association.

Form State Arborists' Association.

As a result of informal discussion among the commercial arborists present at the meetings, a skeleton organization known as the New York State Arborists' Association was formed. Kenneth C. Painter, of the Bartlett Tree Expert Co., Syracuse, was chosen chairman, and Dr. George Matthyse, of Cornell University, will act as secretary-treasurer. An advisory or steering committee was appointed, composed of Henry Bardo, of Bonded Tree Specialists, Inc., White Plains; D. W. Wade, of Wade Tree Expert Service, Pleasantville; F. W. Larmore, of United Tree Service, Schenectady; F. A. Conley, of Twin State Sprayers, Schaghticoke; W. R. Herrmann, of Empire State Tree Expert Co., Syracuse; W. W. Crandall, of Crandall Tree Surgeons, Rochester; Frank E. Karpick, of the city of Buffalo, and Dr. A. M. S. Pridham, of Cornell University. A membership fee of \$5 was proposed for 1951. Members were solicited, and thirty-five joined at the meeting.

The objectives of the association will follow closely those of other tree protective associations in various states. Following a survey of the work of these organizations, a suitable constitution and bylaws will be drawn up for the New York association so that more active and adequate support can be given to movements and programs for the planting and care of shade and ornamental trees in New York.

Cornell Staff Lectures.

Following a welcome by L. R. Simons, director of extension work, Cornell University, the program opened with a discussion of "Trees and Shrubs for New York," by Dr.

John F. Cornman, of the department of floriculture and ornamental horticulture. He pointed out the value of small trees for street and estate planting, giving special mention to those of changing beauty from season to season, as provided by early spring flowering, autumn color or winter fruit. A selection of materials that will grow satisfactorily under varied climatic conditions, with special reference to winter hardiness, and under various soil conditions, with special reference to drainage, were pointed out as critical matters that ought to be taken into account in selecting plants that survive in New York state. Plants particularly subject to insect pests and disease should be avoided. Small trees suitable for street planting are few in number when viewed from the requirements of present-day traffic conditions.

Brush Control.

The field of work in brush control open to commercial arborists with utility companies has been vastly expanded with the advent of chemical brush control during recent years. Dr. Pridham, of the department of floriculture and ornamental horticulture, stressed particularly the opportunities for doing this work during the winter, particularly when basal spraying is used to follow up summer spraying of heavily overgrown brush with large volume spray treatment. Dr. Pridham pointed out that, by applying sprays to the base of the plants during the winter period, either to the cutover brush or to the base of standing brush, exceptionally good control can be obtained by mixtures of oil and growth regulators such as 2,4,5-T.

Initial treatment of brushed-over areas with chemicals for control of woody weeds often results in rapid growth of seedling trees and of grasses. The latter are usually satisfactory for permanent color, whereas tree seedlings often present a problem for future brush control. Winter sprays are particularly adapted for localized treatment of seedling colonies and also for the sucker growth from stumps.

Shade Tree Disease Control.

The subject of diseases and decay was handled by Dr. Donald S. Welch, of the department of plant pathology, who prepared a list of

some twenty-six diseases common to shade trees in New York. He stated that the canker strain of London plane trees, while not a problem in New York, is a good example of a disease transmitted entirely by man on pruning tools, saws, etc. Other diseases of shade trees are usually transmitted by fruiting bodies of the fungus through such natural agencies as rain, wind, etc. Control of London plane tree canker stain requires appreciation by arborists of the necessity for treating tools with an antiseptic each time the tools are used and before a new cut is made and of the use of tree wound paints that contain antiseptic materials.

Dr. Welch reported that, at the present time, there is no effective control for verticillium wilt of maples and that sanitary pruning of infected parts is a wise procedure. For the control of black spot and mildew on roses, Ferbam fungicide (feric dimethyl dithiocarbamate), of which Fermate is one example, is recommended as one of the best, though the leaves and flowers are sometimes discolored by the Ferbam. Dr. Welch also cautioned that willow blight is not easy to control, the fungus continuing to live on the dead twigs, and that spraying is necessary in addition to heavy pruning to remove all diseased parts. Three applications of Bordeaux with an excess of lime are needed, the first being applied when the leaves are about one-quarter of an inch long and repeated twice at 14-day intervals.

Soil Conditions for Tree Growth.

Dr. E. L. Stone, of the department of agronomy, discussed the importance of proper drainage and physical condition of the soil for adequate growth of trees, pointing out that the larger the root system, the greater likelihood that the trees would grow to mature size satisfactorily. He also stated that, under conditions of low soil fertility, certain groups of trees respond well to nitrogen, while others do not. Among those that respond to nitrogen is the white ash; basswood requires a relatively high amount of nitrogen in the soil, while oak and red maple respond to a certain point, but beyond that only tolerate the presence of nitrogen without utilizing it for increased growth.

Following the question as to what

[Continued on page 56.]

Cornell Speakers at New York School

By Clarence E. Lewis, Long Island Agricultural and Technical Institute

Slippery roads prevented greater attendance, so only thirty hardy nurserymen appeared January 30 at the Long Island Agricultural and Technical Institute, Farmingdale, for the annual one-day nurserymen's school sponsored by the Nassau county farm bureau and the extension service of the college of agriculture, Cornell University.

Tree and Shrub Disease Control.

Earl Good, of Hicks' Nurseries, Inc., as moderator, introduced the first speaker, Dr. D. S. Welch, extension plant pathologist, Cornell University, who spoke on "Results of Dogwood Canker Control Work and Control Measures for Common Diseases of Trees and Shrubs." Results on dogwood canker were based on a one-year study, and he said his recommendations could not be taken as a plan for complete control.

Colored slides were shown of the canker injury to dogwood trees, and the treatments that had given favorable results. In one treatment, discolored wood had been removed, including the heartwood, where necessary, and healthy wood for one and one-half inches around the canker. All exposed cambium and wood were painted with orange shellac, the application being immediate and thorough. This treatment was followed by meticulous pruning and fertilizing. Existing borer tunnels were treated in the same manner as the canker. He mentioned that there is no good wound dressing on the market that can be used with the shellac.

Canker seems to exist almost entirely on trees that have been transplanted and may enter through the roots or stems. On double-stemmed types, one stem may die while the other remains alive for a longer period.

Dr. Welch then gave recommendations for controlling fire blight on cotoneaster, suggesting that the nurseryman prune carefully in the dormant season and use orange shellac on the wounds as far as it is practicable. Avoid unnecessary injuries and remove worthless pear, apple and quince trees from the vicinity. Where the disease is persistent and severe, from sources beyond control, Bordeaux 2-6-100 may be tried on the cotoneaster blooms. The first application should be applied when twenty-five per cent of the blooms

are open and again when seventy-five per cent are open. Bordeaux never should be sprayed in prebloom time.

Dr. Welch said that nurserymen should keep in mind that the success of methods used to control diseases may be greatly influenced by climatic and environmental conditions, and especially in areas where local weather conditions may have a marked effect on the development of the causal fungus or other agent. Rainy, wet or foggy weather with high atmospheric humidity favors infection, which explains why most sprays are more effective when applied immediately before rainy periods.

Fungicides used for the control of plant diseases act mainly as protectants, he stated, which means that, in order to be effective, they must be sprayed on the plant before infection begins.

Insecticide Recommendations.

Dr. George Matthyse, extension entomologist, Cornell University, reported on insect test work in 1950 and gave these recommendations. EPN and K-6451 gave good results in controlling southern red mite; K-6451 should be on the market this year. For spruce mite, Dimite effected excellent control, because it decreased the population quickly and kept it to a minimum. Parathion was not so effective as Dimite on spruce mite, but EPN, K-6451 and lime sulphur produced good results.

The following spray combinations should be applied before late May, and repeated later in the season as mites may appear on various plant materials. All are used with 100 gallons of water. One pint of Dimite; two pounds of fifty per cent K-6451 (a Dow product), and one-half pound fifty per cent wettable EPN.

For red mite on azaleas, Aramite, Dieldrin and Dimite were effective; Dieldrin had a long residual action. On boxwood mite K-6451 was effective as well as residual, while Aramite effected a good first kill, but an increase in population was noticed later.

For rhododendron cottony scale, where crawlers and young nymphs were concerned, one and one-half pounds of fifteen per cent Parathion wettable powder to 100 gallons of water gave good control. DDT was not effective. Nicotine showed poor

results when used to control mealy bugs on taxus, but two pounds of fifteen per cent Parathion wettable powder to 100 gallons of water did a much better job.

By using many colored slides, Dr. Matthyse showed the spray injury on various plants as well as the effective results from insecticides. He also mentioned that, in mist blower tests, it was found that TEPP was too toxic to use. Other good suggestions were that the nurseryman can expect some pests to appear every year, so he should plan early to have machinery, materials and manpower available at the proper time. The nurseryman should be ready every year for such pests as mites on evergreens, leaf feeders on elms and willows, Japanese beetles, birch leaf miners, lace bugs on the ericaceae family, and sucking insects on fruits. The danger of using Parathion was emphasized, and it was recommended for use only if the nurseryman was familiar with the dangers involved.

Soils and Fertilizers.

After luncheon, Dr. A. M. S. Pridham, extension floriculturist, Cornell University, spoke on "Soils and Fertilizers for Long Island Nurserymen" and instigated an interesting discussion. The need of fertilizers to produce good green foliage and, consequently, more salable plants, was emphasized. When the topic of mulching was mentioned, it was pointed out that the cost of buckwheat hulls (approximately \$3,600 per acre), was prohibitive. Buckwheat hulls have an inhibitive tendency when mixed with the soil.

Harvey Gray, of the Long Island Agricultural and Technical Institute, mentioned that wood chips and sawdust, in comparison, cost only \$300 per acre and cost no more to apply, but produced a desirable soil temperature and good aeration, which showed in the plant growth. The possibility of collecting the giant reed (phragmites) in the fall and cutting the reed for a mulch also was suggested by Mr. Gray.

Dr. Pridham added that the reason for mulching, other than retaining soil moisture, eliminating weed control and controlling summer soil temperatures, was that it could allow for the closer planting of nursery stock and, consequently, more plants per acre could be grown, since culti-

vation practically would be eliminated. There was no response from the nurserymen when Dr. Pridham asked how many of them made a regular practice of using mulches.

Turf Management.

In his own amiable manner, Dr. John Cornman, turf specialist, Cornell University, discussed "Recent Developments in Turf Management." He mentioned that neither hormones nor vitamins have proved to be necessary in the formation of good turf. Neither is there any evidence to prove that the minor elements, such as boron, are needed for good turf development.

Dr. Cornman spoke about the different types of machines that puncture turf in order to allow greater aeration and water absorption. They have been employed more extensively than results justify. There is no visible evidence to prove that there is a marked improvement after their use, he said. The average turf on a homeowner's lawn is not so packed as the greens and tees of golf courses.

Crab grass control was the next topic of interest, and results of experimentation at two Westchester county golf courses during the summer of 1950 were given.

Ten materials were compared as crab grass herbicides for use on turf. The experiments were analyzed in terms of effective crab grass control and discoloration or injury to the permanent grasses.

The materials which performed best under the conditions of these experiments were Linck wettable powder which was applied dry with vermiculite, and Scutl (both phenyl mercuric acetate formations), acetate potassium cyanate and dichloral urea. The phenyl mercuric formulations were effective during and after midsummer. The rate of action was slow. Potassium cyanate reacted rapidly and was most effective when used after mid-August. Dichloral urea is not available on the market.

Other conclusions were that mercury compounds were too expensive for golf course use, while potassium cyanate gave good results with lower costs.

All materials should be applied in weather that is fairly cool for that time of year.

Golden Nematode Control.

The concluding speaker was John R. Tank of the golden nematode control laboratory, Hicksville, who told the audience about the relationship of golden nematode quarantine to the Long Island nurserymen. He emphasized at the start

that there were no producing nurseries which had been affected; only such establishments as roadside salesyards, greenhouses and farm lands had been involved.

Since this nematode was first found on Long Island in 1941 about 9,000 acres have been infested of which about 3,000 have now been absorbed in real-estate development. Soil samples have been taken from all states except two, and no infestations have been recorded.

Potatoes and tomatoes, both from same genus, *solanum*, are the only plants of economic value that are involved. Other crops may be grown on these infested lands, but if they are root crops, they must be thoroughly washed before being removed from the area.

The movement of topsoil seems to be the biggest problem, because this is the common means by which the golden nematode is transferred from an infested area to an uninfested area. Certified truckers are used in moving soil for a landscape job from a golden nematode area. The nurserymen can help by using clean tools and safe practices.

LONG ISLAND SCHOOL.

The seventh annual school for nurserymen and their employees, sponsored by the Long Island Agricultural and Technical Institute and the New York State Nurserymen's Association, was conducted at Farmingdale, N. Y., January 31 and February 1. A total of sixty-six registrants was recorded, although snow and foggy weather curtailed traveling. Despite the weather, some nurserymen journeyed from as far as Pennsylvania, New Jersey and the Hudson valley to attend the two days of special talks and workshop discussions. Carl Wedell, head of the school of horticulture, and Harvey Gray, instructor of the nursery major, led the workshop discussion groups. Summaries of the talks presented will appear in the next issue.

MILWAUKEE PROTEST.

Representatives of the Master Landscape Gardeners' Association of Milwaukee, Wis., appeared before the housing committee of the common council, January 22, to protest against the landscaping of the Arena grounds by the city forestry department at a cost of \$17,620, when it could have been done for not more than \$10,000 by private landscape gardeners, according to T. A. Singer, of Singer Bros., Inc.

Disputing the assertion, Griggs

Waring, city forester, stated that the Auditorium board was billed for \$5,507, the cost of materials the city had to buy for the job, and the remainder of the cost was absorbed by the forestry department, \$12,113 for labor, supervision and equipment.

Alex Klokner, for the association, contended that the city should get out of the forestry business except for control of work done. The housing committee placed the association's protest on file. J. E. H.

MILWAUKEE PLANTINGS.

All of the parks in Milwaukee county, Wisconsin, are controlled by the Milwaukee county park commission, of which Jerome C. Dretzka is executive secretary, who reports that the 1950 program included the planting of 2,411 deciduous trees, 375 evergreens, 109 elms of from 6 to 15-inch diameter and other trees and 6,777 shrubs.

The city of Milwaukee also had a tree planting program in places other than in parks, and a total of 3,500 trees was planted in 1950.

J. E. H.

OHIO NURSERYMEN'S DAY.

[Continued from page 15.]

has been used on lawns and pyracantha to stop growth. One spraying every seven or eight weeks in California has been sufficient to check the growth of plants.

Sodium arsenite is now being tested for soil sterilization and to prevent the spread of quack grass. It is the cheapest and most effective compound found to give total kill on weeds and grass on driveways. In some places which have been retreated, the kill on quack grass has been good, but there was some regrowth. In areas which were not treated more than once, the results were unsatisfactory. Handle sodium arsenite with caution, for it is extremely poisonous.

Those who would like up-to-date information on weed killers can obtain the research report of the seventh annual north central weed control conference of 1950 for \$2, by writing to Dr. K. P. Buchholtz, Agronomy Department, University of Wisconsin, Madison, Wis.

[To be continued.]

IDYLACRES NURSERY, 361 East 248th street, Euclid 23, O., is being operated by Arnold C. Gronert, who has changed from growing gladioli under the name Idylacres Glad Farm to the growing of nursery stock.

Maryland Short Course on Propagation

By Bernard Bridgers

The Maryland nurserymen's short course was held at the University of Maryland, College Park, January 31. Even though inclement weather restricted travel, the meeting was well attended.

Research for Nurserymen.

The program opened with a message of greetings by Prof. Pardon W. Cornell, of the department of horticulture. After his introductory remarks, Professor Cornell discussed the research program being carried out by the university in the propagation and growing of ornamental woody plants.

One research project is the determination of the effect of high-analysis, water-soluble fertilizers on azaleas. The azaleas, Coral Bells and Hexe, are grown in different soil media. Pure peat is used for some plants, and a combination of one-third topsoil, one-third sand and one-third peat is used for the others. Fertilizing is done with nitrogen, phosphorus and potassium in different formulations, such as 20-0-0, 20-10-20, 15-30-15 and 45-25-15, at the rate of one ounce per gallon of water once a month.

Soil influences on leaf color of holly are being studied. Plants being grown in poor soil and peat and poor soil and leaf mold and control plants in poor soil alone are under observation. Applications of special fertilizers, such as Hollytone, tobacco stems plus castor pumice and a complete fertilizer of 5-30-15, are used.

A study of the relationship of the nutrient content of the stock plant on the rooting response of cuttings is another research project. Stock plants being used are geraniums, privets and azaleas. Stock plants of *Ligustrum aquifolium* and *Geranium Ricard* were grown in sand. Every third day they were given a fertilizer of nitrogen, phosphorus and potassium in different combinations, from a low concentration of 1-1-1 to a high concentration of 3-3-3. Leaf mallet cuttings of geraniums were taken, and rooting response was noted. Nitrogen deficiency appears to have the greatest detrimental effect on the rooting response of the cuttings.

Stem cuttings were taken of the privet and divided into two lots. One lot was used as a control, and the other lot of cuttings was treated with sixty parts per million of indolebuty-

ric acid for twenty-four hours. Observations on root formation were recorded as to length, number, score and dry weight. Again, nitrogen applied to the stock plant showed in the rooting response of the cuttings. However, under these conditions the hormone treatment alone was more significant than the nutrition of the stock plants.

Azaleas Snow, Hexe and Vervaeckiana were grown in quartz sand and in peat. Fertilization was the same as described for privet and geranium. Cuttings were taken, and rooting response was noted. It appears that nitrogen again may be quite important in the root formation of cuttings from these plants.

Professor Cornell concluded by reviewing the work being done on propagation of rhododendrons by stem cuttings. Anatomical and chemical studies have been carried out. Data from these tests in combination with results from other treatments are under investigation.

Grafting Woody Ornamentals.

In a talk entitled "Propagation of Woody Ornamental Plants," Richard H. Fillmore, propagator at the Arnold Arboretum, Jamaica Plain, Mass., told about propagation by grafting, cuttings and seeds. He emphasized that success in grafting depends upon the matching of compatible stock and scion, the proper environment for the graft and the technique employed. Incompatibility may be a serious factor and in some cases may be toxic. Contrary to common belief, a large bulge at the graft union is not necessarily a sign of incompatibility. Mr. Fillmore suggested that some of the incompatibilities might be overcome by a double or compound graft. In these grafts the intermediate material must be compatible with both the rootstock and the terminal scion. This type of graft reportedly makes a good plant. In semi-incompatible grafts, such as lilac on privet, he reversed the polarity of the understock, diminishing the possibility of bud break from the privet and increasing the possibility of the lilac's ultimately forming its own root system.

The usefulness of grafting is not limited to assuring vigor and exact reproduction of the plant, but may be utilized to reproduce plants more resistant to insects, diseases and cold.

In the propagation of rhododen-

drons by grafting the best results were obtained when the saddle graft was used. Good results were obtained at the Arnold Arboretum with scions collected December 8 and grafted by saddle graft December 20. The grafts were sparingly tied with waxed string, and the plants were mulched. The grafts were covered and not given subdued light. This proved to be an easy, timesaving method.

Malus Dorothea, a good, rose-colored, semidouble, spontaneous seedling, was grafted on roots from No. 1 Washington state stock with good results. With the whip graft, using a rootstock about one-quarter inch in diameter and six inches long, with the cut at the top sloping, and the scion four to six inches long, cut to match, Mr. Fillmore has produced flowering plants in about three years. The graft is best taped with nursery grafting tape because the tape disintegrates after about two months in the soil and has no girdling effect on the plant. He stressed the importance of holding and taping the lower portion of the scion firmly, as that is where union first takes place.

The temperature for plants grafted in January or February should be 40 degrees Fahrenheit for about two months, although, if grafting is done later, the plants may be stored at temperatures up to 70 degrees for shorter periods. At 70 degrees, only six to eight days are required for a union, although the danger of buds' breaking is ever-present when the temperature is raised.

Acer palmatum sanguineum, a red-leaved Japanese maple, is grafted similarly to apple, but grafting is done immediately after bud activity is evident. The scion should be as large as the stock that is cut away and should have been stored under cold conditions. For best results remove a little bark at the back and the front of the scion. After inverting and dipping the entire plant in Parawax, place the grafted plants on an open bench at a temperature of 60 degrees. This dipping of the plant, to near the soil line, does not interfere with it and eliminates the need for a grafting case.

Budding is recommended for Oriental cherry and stone fruits.

Lilac grafted on tree lilac produced four feet of growth in one year and flowered early, said Mr. Fillmore.

Practically every series of dwarfing

[Continued on page 28.]

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MULTIPLE APPLE

Five-N-Ones:

	Per 10	Per 100	Per 1000
7/16 to 9/16-in. caliper.....	\$ 6.00	\$ 55.00	\$500.00
9/16 to 11/16-in. caliper.....	7.00	65.00	600.00
11/16-in. caliper and up.....	8.00	75.00	700.00

APPLE, Assorted

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Varieties:

Red Delicious.
Grimes Golden.
Jonathan.
Stayman Winesap.
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7/16 to 9/16-in. caliper.....	3.00	25.00
9/16 to 11/16-in. caliper.....	3.50	30.00
11/16-in. caliper.....	4.50	40.00

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1/2 to 3/4-in.....	.70	6.00	50.00
3/4 to 1-in.....	.80	7.00	60.00
1-in. and up.....	1.00	8.00	70.00

CHERRY

SOUR—1-yr., Branched.

Varieties:

Montmorency.
Early Richmond.

	Per 10	Per 100	Per 1000
7/16 to 9/16-in. caliper.....	\$5.00	\$40.00	.....
9/16 to 11/16-in. caliper.....	6.00	50.00	.....

SWEET—1-yr., Whips and Branched.

Variety:

Black Tartarian.

7/16 to 9/16-in. caliper.....	6.00	50.00	.....
9/16 to 11/16-in. caliper.....	7.00	60.00	.....

DIOSPYROS VIRGINIANA.

American Persimmon.

6 to 12 ins., S.....	.25	1.50	\$12.50
12 to 18 ins., S.....	.35	2.50	20.00
18 to 24 ins., S.....	.40	3.50	30.00
2 to 3 ft., S.....	.50	4.50	40.00
3 to 4 ft., S.....	.65	6.00	55.00
4 to 5 ft., S.....	.75	7.00	65.00

NUT TREES

CORYLUS AMERICANA.

American Filbert.

	Per 10	Per 100	Per 1000
6 to 12 ins., S.....	\$0.60	\$ 5.00	\$ 45.00
12 to 18 ins., S.....	.70	6.00	55.00
18 to 24 ins., S.....	.90	8.00	70.00
12 to 18 ins., 3-yr., Br.....	1.25	10.00	90.00
18 to 24 ins., 2-yr., Br.....	2.00	17.50	150.00
2 to 3 ft., 3-yr., Br.....	3.00	25.00	225.00

CORYLUS AVELLANA. European Filbert.

12 to 18 ins., S., Br.....	1.25	10.00	.....
18 to 24 ins., S., Br.....	2.00	17.50	.....
2 to 3 ft., S., Br.....	3.00	25.00	.....

CASTANEA MOLLISSIMA. Chinese Chestnut.

(This is the true blight-resistant Chinese Chestnut from an orchard of selected strain.)

	Per 10	Per 100	Per 1000
18 to 24 ins., 2-yr.....	\$ 3.50	\$ 30.00	\$250.00
2 to 3 ft., 2-yr.....	5.50	50.00	400.00
3 to 4 ft., 2-yr.....	7.50	70.00	600.00
4 to 5 ft., 2-yr.....	10.00	90.00	.....
5 to 6 ft., 2-yr.....	12.50	110.00	.....

CASTANEA SATIVA. European Chestnut.

	Per 10	Per 100	Per 1000
2 to 3 ft., 3-yr. S.....	\$ 5.00	\$ 40.00	.....
3 to 4 ft., 3-yr. S.....	7.00	60.00	.....
4 to 5 ft., 3-yr.....	8.00	70.00	.....

HICORIA LACINIOSA. Shellbark Hickory.

HICORIA OVATA. Shagbark Hickory.

4 to 6 ins., S.....	.60	5.00	\$40.00
6 to 12 ins., S.....	.80	6.00	50.00
12 to 18 ins., S.....	1.50	10.00	80.00
3 to 4 ft., S.....	12.50	100.00	.....
4 to 5 ft., S.....	15.00	125.00	.....
5 to 6 ft., S.....	20.00	175.00	.....
6 to 8 ft., S.....	25.00	225.00	.....

JUGLANS CINEREA.

White Walnut (Butternut).

	Per 10	Per 100	Per 1000
6 to 12 ins., S.....	\$0.60	\$ 5.00	\$ 45.00
12 to 18 ins., S.....	.90	8.00	75.00
18 to 24 ins., S.....	1.25	10.00	90.00
2 to 3 ft., S.....	2.00	17.50	150.00
3 to 4 ft., S.....	4.00	35.00	.....
4 to 5 ft., S.....	5.00	45.00	.....
5 to 6 ft., S.....	7.00	65.00	.....

JUGLANS NIGRA.

Black Walnut.

6 to 12 ins., S.....	.35	2.50	20.00
12 to 18 ins., S.....	.50	3.50	30.00
18 to 24 ins., S.....	.60	5.00	40.00
2 to 3 ft., S.....	.80	7.00	60.00
3 to 4 ft., S.....	2.50	15.00	100.00
4 to 5 ft., S.....	3.50	25.00	200.00
5 to 6 ft., S.....	4.50	35.00	300.00
6 to 8 ft., S.....	7.00	60.00	.....

JUGLANS REGIA.

English Walnut.

6 to 12 ins.....	7.00	65.00	.....
12 to 18 ins.....	8.00	75.00	.....
18 to 24 ins.....	9.00	85.00	.....
2 to 3 ft.....	10.00	95.00	.....
3 to 4 ft.....	15.00	125.00	.....
4 to 5 ft.....	17.50	150.00	.....
5 to 6 ft.....	20.00	175.00	.....

JUGLANS SIEBOLDIANA.

Japanese Walnut.

12 to 18 ins., S.....	2.00	15.00	.....
18 to 24 ins., S.....	3.00	25.00	.....
2 to 3 ft., S.....	4.00	35.00	.....
3 to 4 ft., S.....	5.00	.....	.....
4 to 5 ft., S.....	7.50	.....	.....
5 to 6 ft., S.....	10.00	.....	.....

See pages 26, 27 and 28 for Forest and Shade Trees and pages 28 and 29 for Coniferous Evergreens and Vines and Creepers.

WHOLESALE PRICE LIST—FOREST NURSERY CO.

HARDY DECIDUOUS FLOWERING SHRUBS

ACANTHOPANAX PENTAPHYLLUM.

Five-leaved Aralis.

	Per 10	Per 100	Per 1000
L. O., C.	\$0.40	\$ 3.50	\$ 30.00
12 to 18 ins., C.	.60	5.50	50.00

ALMOND. *Prunus Glandulosa*.

Double, Pink-flowering Almond (Own-root).

L. O., 12 to 18 ins.	2.00	12.00	110.00
12 to 18 ins., Tr. Well Br.	2.50	20.00	180.00
18 to 24 ins., Tr. Well Br.	3.00	25.00	225.00
2 to 3 ft., Tr. Well Br.	4.00	35.00	.....
3 to 4 ft., Tr. Well Br.	5.00	45.00	.....

ALTHAEA. *Hibiscus Syriacus*.

Shrub Althaea.

Amplissimus, Double Red.

Ardens, Double Violet.

6 to 12 ins., C.	.40	3.00	25.00
12 to 18 ins., C.	.50	3.50	30.00
18 to 24 ins., C.	.60	4.00	35.00
12 to 18 ins., Tr.	1.00	8.00	60.00
18 to 24 ins., Tr.	1.50	12.00	100.00
2 to 3 ft., Tr.	2.00	15.00	.....

Jeanne d'Arc, Double White.

2 to 3 ft., Tr. Well Br.	2.00	15.00	.....
3 to 4 ft., Tr. Well Br.	2.50	20.00	.....

Pleniflora, Double Whitish-pink,

with deep red center.

18 to 24 ins., Tr.	1.50	12.00	.....
2 to 3 ft., Tr.	2.00	15.00	.....

Rubis, Single Red.

6 to 12 ins., 1-yr. C.	.40	3.00	25.00
12 to 18 ins., 1-yr. C.	.50	3.50	30.00
18 to 24 ins., 1-yr. C.	.60	4.00	35.00

Rosea, Single Flowers, Mixed colors.

	Per 100	Per 1000
4 to 6 ins., S.	\$0.50	\$ 4.00
6 to 12 ins., S.	.80	7.00
12 to 18 ins., S.	1.25	10.00
18 to 24 ins., S.	1.50	12.00
2 to 3 ft., S.	2.00	15.00
3 to 4 ft., S.	3.00	25.00

(Less 10 per cent discount in 5,000 lots on Althaea Rosea seedlings.)

BENZON AESTIVALE. Spicebush.

	Per 10	Per 100	Per 1000
6 to 12 ins., S.	\$0.50	\$ 4.00	\$ 30.00
12 to 18 ins., S.	.60	5.00	40.00
18 to 24 ins., S.	.70	6.00	50.00

BERBERIS THUNBERGI.

Green-leaved Barberry.

6 to 9 ins., 2-yr. S.	.40	3.00	25.00
9 to 12 ins., 2-yr. S.	.50	4.00	30.00
12 to 15 ins., 2-yr. S. Br.	.70	6.00	50.00
18 to 24 ins., 2-yr. S. Br.	1.00	8.00	70.00
12 to 15 ins., 3-yr. Tr.	1.50	12.50	.....
15 to 18 ins., 3-yr. Tr.	2.00	15.00	.....
18 to 24 ins., 3-yr. Tr.	2.50	20.00	.....

BERBERIS THUNBERGI ATROPURPUREA.

Red-leaved Barberry.

18 to 24 ins., 3-yr. Tr.	3.50	32.50	.....
24 to 30 ins., 3-yr. Tr.	4.50	40.00	.....

CALYCANTHUS FLORIDUS. Sweet Shrub.

6 to 12 ins., S.	.60	3.00	20.00
12 to 18 ins., S.	.75	4.00	30.00
18 to 24 ins., S.	1.00	5.00	40.00
2 to 3 ft., S.	1.25	6.00	50.00
12 to 18 ins., 2-yr. S. 2 Br. and up.	1.50	12.50	100.00
18 to 24 ins., 2-yr. S. 2 Br. and up, light.	2.00	15.00	.....
2 to 3 ft., 2-yr. S. 2 Br. and up, light.	2.50	20.00	.....
18 to 24 ins., 2-yr., heavy.	.....	.....	.....
3 Canes and up.	2.50	20.00	.....
2 to 3 ft., 2-yr., heavy.	.....	.....	.....
3 Canes and up.	3.00	25.00	.....

CARAGANA ARBORESCENS.

Siberian Pea Tree.

4 to 6 ins., L. O.	.25	1.50	10.00
6 to 12 ins., L. O.	.30	2.00	15.00

CITRUS TRIFOLIATA. Hardy Orange.

	Per 10	Per 100	Per 1000
12 to 18 ins., S.	\$0.80	\$ 7.00	.....
18 to 24 ins., S.	.95	8.50	.....
2 to 3 ft., S.	1.25	10.00	.....

CORNUS AMOMUM. Silky Dogwood.

6 to 12 ins., S.	.30	2.50	\$ 20.00
12 to 18 ins., S.	.40	3.00	25.00
18 to 24 ins., S.	.50	4.00	35.00

CORNUS STOLONIFERA.

Red Osier Dogwood.

6 to 12 ins., S.	.20	1.25	10.00
12 to 18 ins., S.	.30	2.00	15.00
18 to 24 ins., S.	.40	3.00	20.00
2 to 3 ft., S.	.50	4.00	25.00
12 to 18 ins., 2-yr. C., Br.	1.25	9.00	.....
18 to 24 ins., 2-yr. C., Br.	1.50	12.00	.....
2 to 3 ft., 2-yr. C., Br.	2.00	15.00	.....

CYDONIA JAPONICA RUBRA.

Japanese Quince. True Upright Red.

Nonfruiting.

4 to 6 ins., L. O., C.	.80	7.00	60.00
6 to 12 ins., L. O., C.	1.00	8.00	75.00
12 to 18 ins., L. O., C.	1.75	15.00	120.00
12 to 18 ins., 2-yr., Well Br.	3.00	25.00	200.00
18 to 24 ins., 2-yr., Well Br.	4.00	35.00	.....
2 to 3 ft., 3-yr., Well Br.	5.00	40.00	.....
3 to 4 ft., 3-yr., Well Br.	6.00	50.00	.....

DEUTZIA SCABRA.

Candida, Double White;

Crenata, Double Pink;

Pride of Rochester, Double Red.

12 to 18 ins., C.	.40	3.50	30.00
18 to 24 ins., C.	.50	4.00	35.00
12 to 18 ins., Well Br.	.70	6.00	50.00
18 to 24 ins., Well Br.	1.25	10.00	80.00
2 to 3 ft., Well Br.	1.50	12.00	100.00
3 to 4 ft., Well Br.	2.00	15.00	125.00

FORSYTHIA FORTUNEI. Fortune Forsythia.

FORSYTHIA INTERMEDIA. Border Forsythia.

FORSYTHIA SIEBOLDIANA. Siebold Forsythia.

FORSYTHIA VIRIDISSIMA. Greenstem Forsythia.

6 to 12 ins., C.	.30	2.50	20.00
12 to 18 ins., C.	.35	3.00	25.00
18 to 24 ins., C.	.40	3.50	30.00

HAMAMELIS VIRGINIANA. Witch Hazel.

2 to 3 ft., Br.	2.25	25.00	.....
3 to 4 ft., Br.	3.25	35.00	.....

HYDRANGEA ARBORESCENS.

Wild Native Hydrangea.

6 to 12 ins., 1-yr. S.	.30	2.50	20.00
12 to 18 ins., 1-yr. S.	.40	3.50	30.00
18 to 24 ins., 1-yr. S.	.50	4.50	40.00

HYDRANGEA PANICULATA GRANDIFLORA.

Peegee Hydrangea.

4 to 6 ins., 1-yr. C.	.70	6.00	55.00
6 to 12 ins., 1-yr. C.	.80	7.00	65.00
12 to 18 ins., 1-yr. C.	1.25	10.00	90.00

LIGUSTRUM AMURENSE.

Amur River North Privet.

L. O. Field-grown, 1 and 2 Canes.	.30	2.00	17.50
6 to 12 ins., 2 Br. up.	.40	3.00	25.00

LIGUSTRUM IBOLIUM. Ibolium Privet.

L. O. Field-grown, 1 and 2 Br.

6 to 12 ins., 2 Br. up.	.40	3.00	25.00
12 to 18 ins., 2 Br.	.50	4.00	35.00
12 to 18 ins., 3 Br. up.	.60	5.00	45.00
18 to 24 ins., 2 Br.	.60	5.00	45.00
18 to 24 ins., 3 Br. up.	.80	6.00	50.00
2 to 3 ft., 4 Br. up.	1.00	7.00	65.00

LIGUSTRUM OBTUSIFOLIUM.

Ibota Privet.

6 to 12 ins., S.	.20	1.50	15.00
12 to 18 ins., S.	.30	2.50	20.00
12 to 18 ins., Tr., 3 Br.	.60	5.00	.....
18 to 24 ins., Tr., 3 Br. up.	.80	7.00	.....

LIGUSTRUM OVALIFOLIUM.

California Privet.

L. O. Field-grown.	.25	1.50	12.50
6 to 12 ins., 2 Br. up.	.30	2.00	15.00

WHOLESALE PRICE LIST—FOREST NURSERY CO.

HARDY DECIDUOUS FLOWERING SHRUBS—Continued**LIGUSTRUM SINENSE.**

	Per 10	Per 100	Per 1000
Amur River South Privet.			
4 to 6 ins., S.	\$0.60	\$ 3.50	
6 to 12 ins., S.	.80	5.00	
12 to 18 ins., S.	1.00	6.00	
18 to 24 ins., S.	1.25	8.00	
2 to 3 ft., S.	2.00	18.00	
18 to 24 ins., Tr., Well Br.	\$0.60	5.00	45.00
2 to 3 ft., Tr., Well Br.	.80	7.00	60.00
3 to 4 ft., Tr., Well Br.	1.00	9.00	80.00

(10 per cent discount on above seedlings in 10,000 lots.
15 per cent discount on above seedlings in 20,000 lots.
Discount does not apply on transplants.)

PHILADELPHUS CORONARIUS.

Sweet Mock Orange.

	Per 10	Per 100	Per 1000
6 to 12 ins., 1-yr. C.	\$0.40	\$ 3.50	\$ 30.00
12 to 18 ins., 1-yr. C.	.50	4.00	35.00
18 to 24 ins., 1-yr. C.	.60	5.00	45.00
12 to 18 ins., 2-yr., Well Br.	1.00	8.00	
18 to 24 ins., 2-yr., Well Br.	1.25	10.00	

RHUS COPALLINA. Shining Sumac.**RHUS GLABRA.** Smooth Sumac.**RHUS TYPHINA.** Staghorn Sumac.

6 to 12 ins., S.	1.25	10.00	
12 to 18 ins., S.	.25	1.50	12.50
18 to 24 ins., S.	.30	2.00	15.00
2 to 3 ft., S.	.40	2.50	20.00

ROBINIA HISPIDA. Rose Acacia.

12 to 18 ins., L. O.	.40	3.00	25.00
18 to 24 ins., L. O.	.50	4.00	30.00
2 to 3 ft., L. O.	.60	5.00	40.00

SAMBUCUS CANADENSIS. Common Elder.

6 to 12 ins., S.	.35	3.00	
12 to 18 ins., S.	.50	4.00	
18 to 24 ins., S.	.65	5.00	
2 to 3 ft., S.	1.25	10.00	

SOPHORA JAPONICA. Chinese Scholar's Tree.

4 to 6 ins., S.	.50	4.00	
6 to 12 ins., S.	.70	6.00	

SPIRAEA CALLOSA ROSEA.

Pink Fortune Spiraea.

6 to 12 ins., S.	3.00	25.00	
12 to 18 ins., S.	3.50	30.00	
18 to 24 ins., S.	4.00	35.00	

SPIRAEA OPULIFOLIA (Physocarpus).

Ninebark.

6 to 12 ins., C.	.50	4.00	
12 to 18 ins., C.	.60	5.00	
18 to 24 ins., C.	.75	6.00	

See page 24 for Fruit and Nut Trees; page 25 for other Deciduous Flowering Shrubs; pages 28 and 29 for Vines and Creepers, and page 29 for Coniferous Evergreens.

SPIRAEA PRUNIFOLIA. Bridal Wreath.

	Per 10	Per 100	Per 1000
12 to 18 ins., L. O., Div.	\$0.70	\$ 6.00	\$ 50.00
18 to 30 ins., L. O., Div.	.80	7.00	60.00
12 to 18 ins., 1-yr., Tr.			
Field-grown, L. O.	1.25	10.00	80.00
18 to 24 ins., 1-yr., Tr.			
Field-grown, L. O.	1.50	12.50	100.00
12 to 18 ins., 2-yr., Well Br.	2.00	15.00	125.00
18 to 24 ins., 2-yr., Well Br.	2.50	20.00	175.00
2 to 3 ft., 2-yr., Well Br.	3.00	25.00	200.00
3 to 4 ft., 2-yr., Well Br.	3.50	25.00	

STAPHYLEA TRIFOLIA. American Bladdernut.

6 to 12 ins., S.	.50	4.00	
12 to 18 ins., S.	.60	5.00	
18 to 24 ins., S.	.80	7.00	
2 to 3 ft., S.	1.00	9.00	
3 to 4 ft., S.	2.00	17.50	

SYMPHORICARPOS VULGARIS. Coralberry.

	Per 10	Per 100	Per 1000
6 to 12 ins., 1-yr., C.	\$2.00	\$15.00	
12 to 18 ins., 1-yr. C.	2.50	20.00	
18 to 24 ins., 1-yr. C.	3.50	30.00	
12 to 18 ins., 1-yr., Well Br.	\$0.60	5.00	40.00
18 to 24 ins., 1-yr., Well Br.	.75	6.00	50.00

(Less 10 per cent discount in 5,000 lots;
15 per cent in 10,000 lots on Symphoricarpos.)

VIBURNUM TOMENTOSUM.

Double-file Viburnum.

	Per 10	Per 100	Per 1000
12 to 18 ins., C.	\$1.50	\$12.50	\$110.00
18 to 24 ins., C.	2.00	17.50	160.00
2 to 3 ft., C.	2.50	22.50	200.00
18 to 24 ins., 2-yr., Well Br.	5.00	45.00	
2 to 3 ft., 2-yr., Well Br.	7.00	60.00	

WEIGELA AMABILIS. Light Pink.

4 to 6 ins., C.	.35	3.00	25.00
6 to 12 ins., C.	.45	4.00	35.00
12 to 18 ins., C.	.55	5.00	45.00
18 to 24 ins., C.	.65	6.00	55.00

WEIGELA HENDERSONI. Dark Pink.

L. O.			
6 to 12 ins., C.	.35	3.00	25.00
12 to 18 ins., C.	.45	4.00	35.00
18 to 24 ins., C.	.55	5.00	45.00
2 to 3 ft., Well Br.	2.50	20.00	
3 to 4 ft., Well Br.	2.75	25.00	

WEIGELA LUTEA. Yellow.

6 to 12 ins., 1-yr. C.	.60	5.00	
12 to 18 ins., 1-yr. C.	.80	6.00	

WEIGELA ROSEA. Pink.

L. O.			
6 to 12 ins., C.	.35	3.00	25.00
12 to 18 ins., C.	.45	4.00	35.00
18 to 24 ins., C.	.55	5.00	45.00
12 to 18 ins., 2-yr., Well Br.	1.50	12.50	100.00
18 to 24 ins., 2-yr., Well Br.	2.00	17.50	
2 to 3 ft., 2-yr., Well Br.	2.50	20.00	

FOREST and SHADE TREES**ACER DASycARPUM.** Silver Maple.

	Per 10	Per 100	Per 1000
6 to 12 ins., S.	\$1.25	\$10.00	
12 to 18 ins., S.	\$0.20	1.50	12.00
18 to 24 ins., S.	.30	2.00	15.00
2 to 3 ft., S.	.50	3.00	25.00
3 to 4 ft., S.	.50	4.00	35.00

ACER NEGUNDO. Box Elder.

6 to 12 ins., S.	.20	1.50	12.00
12 to 18 ins., S.	.25	2.00	15.00
18 to 24 ins., S.	.35	2.50	20.00
2 to 3 ft., S.	.45	3.50	30.00
3 to 4 ft., S.	.55	5.00	45.00
4 to 5 ft., S.	.75	7.00	60.00
5 to 6 ft., S.	1.00	9.00	80.00

ACER RUBRUM. Scarlet Maple.

6 to 12 ins., S.	.30	2.00	15.00
12 to 18 ins., S.	.35	2.50	20.00
18 to 24 ins., S.	.45	3.00	25.00
2 to 3 ft., S.	.60	5.00	40.00

ACER SACCHARUM. Sugar or Hard Maple.

	Per 10	Per 100	Per 1000
4 to 6 ins., S.		\$1.25	\$10.00
6 to 12 ins., S.	\$0.30	2.00	15.00
12 to 18 ins., S.	.35	2.50	20.00
18 to 24 ins., S.	.60	5.00	40.00

AESCULUS OCTANDRA. Yellow Buckeye.

6 to 12 ins., S.	.50	4.00	35.00
12 to 18 ins., S.	.70	6.00	50.00
18 to 24 ins., S.	.80	7.00	60.00
2 to 3 ft., S.	1.25	10.00	

AILANTHUS GLANDULOSA.

Tree of Heaven.

12 to 18 ins., S.	.35	2.50	20.00
18 to 24 ins., S.	.45	3.50	25.00
2 to 3 ft., S.	.50	4.00	35.00
3 to 4 ft., S.	.65	6.00	55.00
4 to 5 ft., S.	.75	7.00	65.00

WHOLESALE PRICE LIST—FOREST NURSERY CO.

FOREST AND SHADE TREES—Continued

ALBIZZIA JULIBRISSIN.			
Mimosa Tree.			
Per 10	Per 100	Per 1000	
6 to 12 ins.	\$ 0.50	\$ 3.50	\$25.00
12 to 18 ins. ....	.60	4.00	35.00
18 to 24 ins. ....	.75	6.00	50.00
2 to 3 ft.	1.00	9.00	80.00
3 to 4 ft.	3.00	25.00	
4 to 5 ft.	4.50	40.00	
5 to 6 ft.	6.00	50.00	
6 to 8 ft.	10.00	90.00	
8 to 10 ft.	15.00	125.00	
(Less 10 per cent discount in 5,000 lots in grades 3 to 4 ft. and down to 6 to 12 ins.)			

ASIMINA TRILOBA. Papaw.			
Per 10	Per 100	Per 1000	
4 to 6 ins., S.	\$0.40	\$ 3.50	
6 to 12 ins., S. ....	.50	4.50	
12 to 18 ins., S. ....	.70	6.00	

CATALPA SPECIOSA. Northern Catalpa.

(Very popular for the production of Catalpa Worms, excellent pan fish bait for Brim, Perch and other small Sunfish.)

18 to 24 ins., 3-yr. Tr. ....	.60	5.00	
2 to 3 ft., 3-yr. Tr. ....	.85	7.50	
3 to 4 ft., 3-yr. Tr.	1.60	15.00	
4 to 5 ft., 3-yr. Tr.	2.25	20.00	
5 to 6 ft., 3-yr. Tr.	5.00	40.00	
6 to 8 ft., 3-yr. Tr.	6.00	50.00	

CELTIS MISSISSIPPIENSIS.

Southern Hackberry.

CELTIS OCCIDENTALIS. Northern Hackberry.

6 to 12 ins., S. ....	.25	2.00	\$ 15.00
12 to 18 ins., S. ....	.30	2.50	20.00
18 to 24 ins., S. ....	.40	3.50	30.00
2 to 3 ft., S. ....	.50	4.50	

CERCIS CANADENSIS. American Redbud.

4 to 6 ins., S.		1.50	10.00
6 to 12 ins., S. ....	.25	2.00	15.00
12 to 18 ins., S. ....	.30	2.50	20.00
18 to 24 ins., S. ....	.45	3.50	30.00
2 to 3 ft., S. ....	.60	5.00	45.00
3 to 4 ft., S.	1.25	10.00	90.00
3 to 4 ft., Tr., Br.	4.00	35.00	
4 to 5 ft., Tr., Br.	6.00	50.00	
5 to 6 ft., Tr., Br.	8.50	75.00	
6 to 8 ft., Tr., Br.	10.00	90.00	
8 to 10 ft., Tr., Br.	15.00	125.00	

CORNUS FLORIDA. White Dogwood.

6 to 12 ins., S. ....	.50	3.50	25.00
12 to 18 ins., S. ....	.60	4.50	35.00
18 to 24 ins., S. ....	.80	7.00	60.00
2 to 3 ft., S.	1.50	12.50	100.00
3 to 4 ft., S.	2.50	20.00	150.00
2 to 3 ft., Tr., Well Br.	6.00	50.00	
3 to 4 ft., Tr., Well Br.	10.00	90.00	
4 to 5 ft., Tr., Well Br.	17.50	150.00	
5 to 6 ft., Tr., Well Br.	20.00	175.00	
4 to 5 ft., Tr., Well Br., B&B.	20.00	175.00	

CORNUS FLORIDA RUBRA.

Pink Dogwood.

Lining-out Special.			
12 to 18 ins.	9.00	80.00	700.00
18 to 24 ins.	10.00	90.00	800.00
2 to 3 ft.	12.50	100.00	900.00
Caliper Well Branched.			
18 to 24 ins., 5/16 to 7/16-in. Cal.	12.50	100.00	
24 to 30 ins., 7/16 to 9/16-in. Cal.	15.00	125.00	
30 to 36 ins., 9/16 to 1 1/16-in. Cal.	17.50	150.00	
(Add 35c each for B&B.)			

FAGUS AMERICANA. American Beech.

4 to 6 ins., S.		1.25	10.00
6 to 12 ins., S. ....	.25	1.50	12.50
12 to 18 ins., S. ....	.30	2.00	15.00
18 to 24 ins., S. ....	.40	2.50	20.00

FRAXINUS AMERICANA. White Ash.

FRAXINUS LANCEOLATA. Green Ash.

6 to 12 ins., S.		1.00	8.00
12 to 18 ins., S. ....	.25	1.50	12.50
18 to 24 ins., S. ....	.30	2.50	20.00
2 to 3 ft., S. ....	.40	3.00	25.00
3 to 4 ft., S. ....	.60	5.00	40.00
4 to 5 ft., S.		7.50	70.00

GINKGO BILOBA.

Per 10	Per 100	Per 1000	
4 to 6 ins., S.	\$ 1.00	\$ 8.00	
6 to 9 ins., S.	1.25	10.00	
9 to 12 ins., S.	1.50	12.00	

GLEDITSIA TRIACANTHOS INERMIS.

Thornless Honey Locust.

6 to 12 ins., S. ....	.25	1.50	\$ 12.00
12 to 18 ins., S. ....	.30	2.00	15.00
18 to 24 ins., S. ....	.35	2.50	20.00

GYMNOCLADUS DIOICUS.

Kentucky Coffee Tree.

6 to 12 ins., S.	1.50	10.00	90.00
12 to 18 ins., S.	2.00	15.00	125.00
18 to 24 ins., S.	2.50	20.00	175.00
2 to 3 ft., S.	4.00	30.00	250.00
3 to 4 ft., S.	5.00	40.00	
4 to 5 ft., S.	6.00	50.00	

LIRIODENDRON TULIPIFERA.

Tulip Tree.

4 to 6 ins., S.		1.00	8.00
6 to 12 ins., S. ....	.20	1.25	10.00
12 to 18 ins., S. ....	.25	1.50	12.00
18 to 24 ins., S. ....	.30	2.00	17.50
2 to 3 ft., S. ....	.35	2.50	20.00
3 to 4 ft., S. ....	.50	4.00	35.00
3 to 4 ft., Tr., Well Br., Good Caliper	4.00	35.00	
4 to 5 ft., Tr., Well Br., Good Caliper	6.00	50.00	
5 to 6 ft., Tr., Well Br., Good Caliper	7.00	60.00	
6 to 8 ft., Tr., Well Br., Good Caliper	10.00	75.00	
8 to 10 ft., Tr., Well Br., Good Caliper	12.50	100.00	

LIRIODENDRON TULIPIFERA.

Special Lining-out Grades:

Per 10	Per 100	
4 to 5 ft., Tr., Slender Light Br.	\$3.00	\$25.00
5 to 6 ft., Tr., Slender Br.	4.00	35.00
6 to 8 ft., Tr., Slender Light Br.	5.00	45.00

These are straight, well rooted trees, but light in caliper. Excellent liners.

MACLURA POMIFERA. Osage Orange.

Per 10	Per 100	Per 1000	
6 to 12 ins., S.	\$ 0.80	\$ 7.00	
12 to 18 ins., S.		1.25	10.00

MALUS CORONARIA. Wild Sweet Crab.

6 to 12 ins., S.	\$0.50	4.00	35.00
2 to 3 ft., 2-yr. S., Br.	2.00	15.00	
3 to 4 ft., 2-yr. S., Br.	3.00	25.00	
4 to 5 ft., 2-yr. S., Br.	4.00	35.00	

MALUS ELEYI. Eley Flowering Crab.

4 to 5 ft., 2-yr. Grafts.	6.00	50.00	
5 to 6 ft., 2-yr. Grafts.	7.00	60.00	

MORUS ALBA TATARICA.

Russian Mulberry.

6 to 12 ins., S. ....	.20	1.50	10.00
12 to 18 ins., S. ....	.30	2.00	15.00
18 to 24 ins., S. ....	.40	2.50	20.00

PLATANUS OCCIDENTALIS.

American Plane Tree

(American Sycamore).

5 to 12 ins., S.		2.00	15.00
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POPULUS NIGRA ITALICA.

Lombardy Poplar.

Per 10	Per 100	Per 1000	
6 to 12 ins., C.	\$0.20	\$ 1.50	\$12.00
12 to 18 ins., C. ....	.30	2.00	17.50
18 to 24 ins., C. ....	.40	3.00	25.00
2 to 3 ft., C. ....	.60	5.00	35.00
3 to 4 ft., C. ....	.70	5.50	45.00
4 to 5 ft., C.	1.00	7.00	60.00
5 to 6 ft., C.	1.25	8.50	75.00
4 to 5 ft., Tr.	4.00	30.00	
5 to 6 ft., Tr.	5.00	40.00	
6 to 8 ft., Tr.	6.00	50.00	
8 to 10 ft., Tr.	7.00	60.00	

PRUNUS PERSICA RUBRA PLENA.

Double Red-flowering Peach.

PRUNUS PERSICA ALBA PLENA.

Double White-flowering Peach.

Per 10	Per 100	Per 1000	
2 to 3 ft., Dormant Buds.	\$6.00	\$40.00	
3 to 4 ft., Dormant Buds.	8.00	60.00	

WHOLESALE PRICE LIST—FOREST NURSERY CO.

FOREST AND SHADE TREES—Continued

PTELEA TRIFOLIATA. Hop Tree.

	Per 10	Per 100	Per 1000
12 to 18 ins.	\$0.70	\$ 6.00	....
18 to 24 ins.	1.00	8.00	....
2 to 3 ft.	2.00	15.00	....
3 to 4 ft.	2.50	20.00	....

QUERCUS ALBA. White Oak.

4 to 6 ins., S.	.50	3.00	\$20.00
6 to 12 ins., S.	.60	4.00	30.00
12 to 18 ins., S.	.70	5.00	40.00

QUERCUS PRINUS. Chestnut Oak.

6 to 12 ins., S.	.50	4.00	30.00
12 to 18 ins., S.	.60	5.00	40.00
18 to 24 ins., S.	.80	7.00	....
2 to 3 ft., S.	.90	8.00	....
3 to 4 ft., S.	1.25	10.00	....

RHAMNUS CAROLINIANA.

Carolina Buckthorn.

12 to 18 ins.	....	2.50	20.00
18 to 24 ins.	....	3.00	25.00
2 to 3 ft.	....	4.00	30.00
3 to 4 ft.	1.25	10.00	....
4 to 5 ft.	3.00	25.00	....
5 to 6 ft.	5.00	40.00	....

See page 24 for Fruit and Nut Trees; pages 25 and 26 for Hardy Deciduous Flowering Shrubs, and pages 26 and 27 for other Forest and Shade Trees.

ROBINIA PSEUDOACACIA. Black Locust.

	Per 10	Per 100	Per 1000
4 to 6 ins., S.	....	\$ 0.50	\$ 4.00
6 to 12 ins., S.	....	.75	6.00
12 to 18 ins., S.	....	1.25	10.00
18 to 24 ins., S.	\$0.25	1.50	12.50
2 to 3 ft., S.	.30	2.50	15.00
3 to 4 ft., S.	.50	3.50	25.00
4 to 5 ft., S., Br.	2.00	15.00	125.00
5 to 6 ft., S., Br.	4.00	30.00	....
6 to 8 ft., S., Br.	6.00	50.00	....

SALIX BABYLONICA. Weeping Willow.

6 to 12 ins., 1-yr. C.	.25	1.50	....
12 to 18 ins., 1-yr. C.	.35	2.50	....
18 to 24 ins., 1-yr. C.	.45	3.00	....
2 to 3 ft.	.50	4.00	....

SALIX VITELLINA.

Golden Weeping Willow.

12 to 18 ins., C.	.30	2.00	15.00
18 to 24 ins., C.	.40	3.00	25.00

ULMUS AMERICANA. American Elm.

6 to 12 ins., S.	....	.80	6.00
12 to 18 ins., S.	....	1.25	10.00
18 to 24 ins., S.	....	2.00	18.00
2 to 3 ft., S.	....	2.50	....
3 to 4 ft., S.	....	3.50	....

ULMUS PUMILA. Chinese Elm.

6 to 12 ins., S.	....	1.00	8.00
12 to 18 ins., S.	....	1.50	12.50

VINES and CREEPERS

AMPELOPSIS QUINQUEFOLIA.

Virginia Creeper.

	Per 10	Per 100	Per 1000
L. O. Seedlings	\$0.35	\$3.00	\$25.00
6 to 12 ins., S.	.70	6.00	50.00
12 to 18 ins., 2-yr. S.	.60	5.00	40.00

ARISTOLOCHIA TOMENTOSA.

Dutchman's-pipe Vine.

1-yr. S., No. 1	.35	2.50	20.00
1-yr. S., No. 2	.30	2.00	15.00

BIGNONIA CAPREOLATA.

Crossvine (Evergreen).

1-yr., L. O., No. 1	.40	3.00	25.00
1-yr., L. O., No. 2	.60	5.00	40.00

BIGNONIA RADICANS. Trumpet Creeper.

6 to 12 ins., 1-yr. S.	.30	2.00	15.00
12 to 18 ins., 1-yr. S.	.40	3.00	25.00

CELASTRUS ORBICULATA.

Oriental Bittersweet.

CELASTRUS SCANDENS.

American Bittersweet.

	Per 10	Per 100	Per 1000
6 to 12 ins., S.	\$0.35	\$ 2.50	\$20.00
12 to 18 ins., S.	.40	3.00	25.00
18 to 24 ins., S.	.50	4.00	30.00
6 to 12 ins., 1-yr. C.	.50	4.00	35.00
12 to 18 ins., 1-yr. C.	.60	5.00	45.00

CLEMATIS VIRGINIANA.

Virgin's-bower.

L. O. Seedlings, No. 1	1.25	10.00	....
L. O. Seedlings, No. 2	1.00	8.00	....
2 1/2-in. Pot Plants	2.00	17.50	....
3-in. Pot Plants	2.50	22.50	....

MARYLAND SHORT COURSE.

[Continued from page 23.]

stock of *Prunus persica*, *Prunus tomentosa* and *malus* has been found to have a small core of wood and a large ring of bark. This suggests an important means of determining if a woody plant has dwarfing characteristics.

Use of Hormones in Propagation.

There are many factors in rooting cuttings. One of them is the use of hormones, which is not a purely man-made phenomenon. Hormones were first found in plant and animal waste products. They normally develop in buds, especially the terminal bud, and travel down the stem. The base of the cutting therefore accumulates these materials, and rooting response is naturally induced. If the natural accumulation is sufficient there is no need for additional treatment. In rooting many strange plants, the

genera should be established if possible. If they are hollies or rhododendrons, hormone treatment is justified. All other plants should be benched without treatment.

Talc preparations of hormones are generally used, and, as their efficacy is dependent on the fineness of the powder, Mr. Fillmore suggested that the powder be placed in a dusting can and be dusted on a piece of paper as required. The surplus should be discarded, because moisture from the cuttings causes lumpiness and impairs its efficacy.

In the use of hormone solutions, a difference has been noted in the rooting response of the various carriers. Because ethylene glycol and isopropyl alcohol are inferior to ethyl alcohol or water, the former should be replaced by the latter. Only the minimum amount of the best possible concentration of a hormone

should be used; excessive amounts may be injurious.

Propagation by Seeds.

Azalea and rhododendron seeds are collected at the Arnold Arboretum in the fall, cleaned during the winter and sown in mid-February to grow on in the greenhouse after the spring rush is over, said Mr. Fillmore. Sphagnum moss is used over the soil in flats. The first watering is surface watering, and after that a constant-level watering system is used.

A lightweight soil mixture containing sphagnum moss and Styrofoam A was recommended to save shipping weight on seedlings.

Azalea Specialist.

Speaking on "Azaleas," B. Y. Morrison, acting director of the National Arboretum, Washington, D. C., described his early interest in these plants and his desire to know them

WHOLESALE PRICE LIST—FOREST NURSERY CO.

VINES and CREEPERS—Continued

	Per 10	Per 100	Per 1000
COCULUS CAROLINAS.			
Carolina Moon Vine.			
1-yr. S., No. 1.	\$0.35	\$ 2.50	
1-yr. S., No. 2.	.30	2.00	
KUDZU VINE.			
No. 1 Crowns, 2 and 3-yr.		5.00	\$35.00
LONICERA JAPONICA HALLIANA.			
Hall's Japanese Honeysuckle.			
Small, Lining-out		.90	7.00
Medium, Lining-out		1.25	10.00
2-yr. Tr., No. 1.	.90	7.00	65.00
2-yr. Tr., No. 2.	.70	6.00	55.00
2-yr. Tr., No. 3.	.60	5.00	40.00
1-yr. Tr., No. 1.	.70	6.00	50.00
3-yr. Tr., No. 1, Heavy.	1.25	10.00	80.00
LONICERA SEMPERVIRENS.			
Scarlet Trumpet Honeysuckle.			
Small, Lining-out	.35	2.50	20.00
Medium, Lining-out	.40	3.00	25.00

VINCA MINOR. Common Periwinkle.	Per 10	Per 100	Per 1000
Medium, Lining-out (Small)	\$0.15	\$ 1.00	\$ 7.00
Medium, Lining-out	.20	1.25	10.00
VINCA MINOR.			
Common Periwinkle.			
2 1/4-in. Pot Plants.	2.00	17.50	150.00
VITIS AESTIVALIS. Summer Grape.			
VITIS CORDIFOLIA. Winter Grape.			
6 to 12 ins., S.	.35	2.50	20.00
12 to 18 ins., S.	.50	4.00	30.00
WISTARIA FRUTESCENS.			
American Wistaria.			
WISTARIA SINENSE.			
Blue, Chinese Wistaria.			
1-yr. S., No. 2.	.80	6.00	
1-yr. S., No. 1.	1.00	8.00	
Grafting Grade, 1/4-in. and up.		10.00	
18 to 24 ins., 2-yr. S.	2.00	15.00	
2 to 3 ft., 2-yr. S.	2.50	20.00	

CONIFEROUS EVERGREENS

BIOTA OCCIDENTALIS PYRAMIDALIS.	Each	Per 10
American Pyramid Arborvitae.		
24 to 30 ins.	\$2.00	\$17.50
30 to 36 ins.	2.50	20.00
BIOTA ORIENTALIS AUREA NANA.		
Berkmans Golden Arborvitae.		
15 to 18 ins.	2.00	17.50
18 to 24 ins.	2.25	20.00
24 to 30 ins.	2.50	22.50
BIOTA ORIENTALIS EXCELSA.		
Excelsa Arborvitae.		
18 to 24 ins.	1.75	15.00
24 to 30 ins.	2.00	17.50
30 to 36 ins.	2.25	20.00
JUNIPERUS COMMUNIS HIBERNICA.		
Irish Juniper.		
24 to 30 ins.	1.50	12.50
30 to 36 ins.	1.75	15.00
3 to 4 ft.	2.00	17.50
4 to 5 ft.	2.25	20.00
5 to 6 ft.	2.50	22.50
JUNIPERUS COMMUNIS HIBERNICA FASTIGIATA. Columnar Irish Juniper.		
24 to 30 ins.	1.75	15.00
30 to 36 ins.	2.25	20.00
3 to 4 ft.	2.50	22.50
4 to 5 ft.	2.75	25.00
JUNIPERUS EXCELSA STRICTA.		
Spiny Greek Juniper.		
15 to 18 ins.	1.50	12.50

JUNIPERUS VONEHRON.	Each	Per 10
24 to 30 ins.	\$2.75	\$25.00
30 to 36 ins.	3.00	27.50

JUNIPERUS VIRGINIANA BURKI.		
JUNIPERUS VIRGINIANA CANAERTI.		
JUNIPERUS VIRGINIANA GLAUCA.		
JUNIPERUS CHINENSIS COLUMNARIS.		
CHANDLER'S SILVER JUNIPER.	Each	Per 10
15 to 18 ins., B&B light grade, sheared.	\$2.00	\$17.50
18 to 24 ins., B&B light grade, sheared.	2.25	20.00
24 to 30 ins., B&B light grade, sheared.	2.50	22.50
(Less 50c per plant for bare root.)		

PICEA CANADENSIS. White Spruce.		
PICEA CANADENSIS ALBERTIANA.		
Black Hills Spruce.		
PICEA EXCELSA. Norway Spruce.	Each	Per 10
18 to 24 ins.	\$2.00	\$17.50
24 to 30 ins.	2.25	20.00
TSUGA CANADENSIS. Canadian Hemlock.		
18 to 24 ins.	2.25	20.00
24 to 30 ins.	2.75	25.00
TSUGA CANADENSIS. Canadian Hemlock.		
18 to 24 ins.	2.25	20.00
24 to 30 ins.	2.75	25.00
30 to 36 ins.	3.25	30.00
3 to 4 ft.	3.75	35.00
4 to 5 ft.	4.75	45.00

all before deciding whether or not he would go on working with them. He elected to work with the hardy evergreen azaleas, and the horticultural world is indebted to him for the well known Glenn Dale azalea hybrids. His early interest stemmed from his desire to establish an azalea garden in the Washington, D. C., area that would be comparable to the large azalea gardens in the south. However, the nation became azalea-conscious until his project was no longer just a local garden, and a national interest in azaleas demanded that he go on with his work.

He commented that seeds should be sown as the days begin to lengthen and that the seedlings should not be allowed to rest or become dry. With care, they may be grown on in the coldframe, but Mr. Morrison prefers to plant them outdoors, which may be done in the spring or summer.

He thought that the achievements in azalea hybridization have merely scratched the surface and that the hybridizing potentialities of these plants are almost unlimited.

Nurserymen-Florists' Luncheon.

A joint luncheon with the Middle Atlantic Florists' Club was held in the university's dining hall at 1 p. m. Immediately after the luncheon, Dr. Conrad B. Link, professor of floriculture, extended greetings to both groups and expressed his appreciation for the interest evidenced by members.

Guest speakers at the luncheon were Curtis H. Porterfield, administrative assistant, American Association of Nurserymen, and M. Truman Fossum, of the census bureau.

Mr. Porterfield discussed the future restrictions affecting both florists and nurserymen, with special refer-

ence to material and labor shortages, distribution or transportation facilities and government controls affecting access of foreign labor. He suggested that older persons should be trained now to replace men leaving for military service and that emphasis be placed on developing new labor-saving devices. Nurserymen should keep informed and read all publications pertaining to the industry.

In reviewing figures obtained in the census reports on the dollar value of retail sales in the florists' and nursery business, Mr. Fossum urged these groups to strengthen their positions in regard to improving labor efficiency, stressing the fact that, as they are relatively small groups representing a large industry, it was important that every member work closely with his group.

Joseph S. Merritt, local chairman

PREFERRED PERENNIALS

DICENTRA SPECTABILIS

The old-fashioned Bleeding Heart that everyone wants. These are nice big 2-year-old roots with 3 to 5 eyes or more. Just about the nicest Bleeding Heart we have ever seen. You will like them, and they will please your customers, too.

\$4.50 per 10; \$40.00 per 100.

IRIS KAEMPFERI (Japanese Iris)

The largest and showiest of all iris. Increasing rapidly in popularity as their merit becomes recognized. The large orchid-like flowers bloom in summer after other iris are through blooming. We are nearly sold out, but we still have two good varieties that we will share with you.

Kagari-bi. Chinese red with lighter veins.

Patrocle. Superb dark violet.

\$1.80 per 10; \$15.00 per 100.

GYPSOPHILA BRISTOL FAIRY

Large airy sprays of double white flowers. Excellent for cutting. blooms all summer. This is the most popular of the double-flowering varieties. Our plants are grafted and grown one year in the field—big and husky.

\$4.00 per 10; \$35.00 per 100.

LILY OF THE VALLEY

An old-time favorite that has never lost its appeal. There really isn't anything to take its place. Thrives in locations too shady for anything else to grow. Spikes of tiny fragrant white bells in spring. Attractive green foliage all summer. We offer 2-year-old, field-grown pips.

\$4.00 per 100; \$35.00 per 1000.

DIXIE PHLOX (Paniculata)

The best phlox ever introduced for the south. Bright orchid-pink florets; large flower heads on tall strong stems; remarkably disease-free foliage. Withstands high temperatures and thrives in dry weather. If you have had trouble growing phlox, try Dixie.

No. 1, \$15.00 per 100; \$125.00 per 1000.

No. 2, 12.00 per 100; 100.00 per 1000.

STOKESIA BLUE MOON (Stoke's Aster)

An aristocrat among the newer perennials. Large china-blue aster-like flowers, several inches across, borne on strong stiff stems. Begins blooming in midsummer and continues until hard frost. You should have some of these to make your customers happy.

\$2.10 per 10; \$18.00 per 100; \$150.00 per 1000.

We offer a complete line of nursery stock for the wholesale trade.

Send for price list.

THE WILLIS NURSERY COMPANY

"Your Wholesale Nurserymen"

Ottawa, Kansas

of the twenty-seventh national flower show, to be held in March at Baltimore, spoke briefly about the show and invited members of the associations to sponsor exhibits.

Landscape Design Principles.

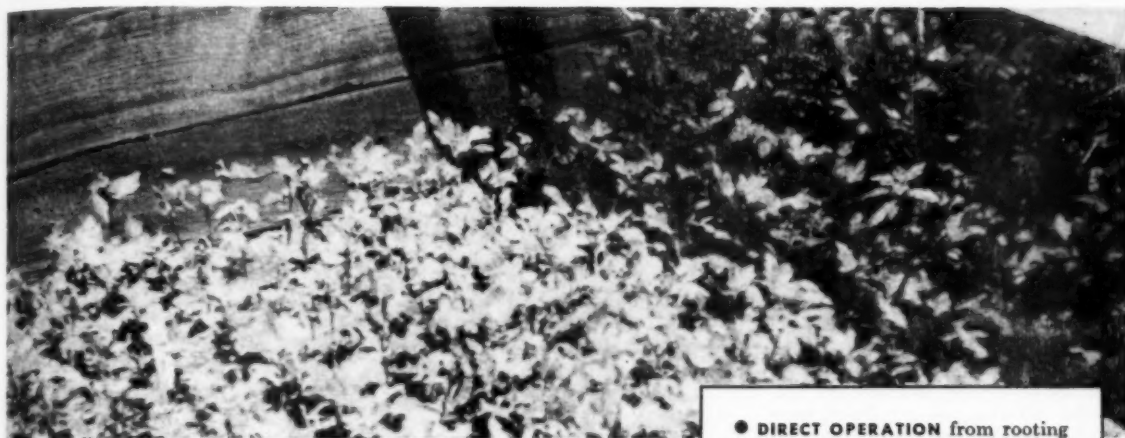
The program was concluded with a discussion of "The Principles of Good Landscape Design," led by Martin Funnell, landscape architect, Baltimore. He spoke about the nature of landscape design, its amorphous qualities without true criteria for evaluation, and the indefinable qualities needed by a good landscape architect to meet the many and varied tastes of the public. He stated that every individual has a certain amount of design ability. This ability in combination with the individual's perception and education in design determines the extent to which he can produce a good design. Education in design is helpful, but is never to be substituted for concentration and hard work.

The primary factors in developing a landscape design are people, space the people occupy and materials used to give form in three dimensions. The principal steps in creating good design are order, plan and appearance. There are certain logical sequences which should be followed if good results are to be obtained. Order should be obtained through an analysis of the design problem. The plan is the translating of ideas into a 2-dimensional layout. A consideration of the third dimension as applied to the 2-dimensional study is necessary to obtain the general appearance of the finished design.

WESTERN PENNSYLVANIA ELECTS OFFICERS.

The board of directors of the Western Pennsylvania Nurserymen's Association met January 9 at Pittsburgh to elect officers. The new president is Stanley Leonard, Leonard & Leonard, Pittsburgh, and the new vice-president is Lawrence G. Wilson, Wilson Landscape Service, Butler. Roy Breidenbach, Pittsburgh Landscape & Design Service, Pittsburgh, was reelected treasurer, and Louis Wissenbach, Squirrel Hill Nursery, Pittsburgh, secretary.

OPENED recently at Dallas, Tex., were a retail nursery salesyard and florists' shop operated by the Verhalen Nursery Co., Scottsville, Tex. Called Plaza Gardens, the new establishment is located at 265 Casa Linda plaza. The company also maintains a wholesale salesyard at Dallas.



ROOTED IN JANUARY, in Vita-Bands in frames in April, and carried there for 1½ to 2 years: Holly makes better growth due to extra soil content of Bands, transfers to field with excellent results.

BIRD VITA-BANDS

● **DIRECT OPERATION** from rooting bench to Vita-Bands in frames saves labor. Watering is reduced. Rootball is protected by nutrient-treated Vita-Bands. Better crops at lower cost is result.



greatly aid Holly crops — cut labor and costs

Holly is a difficult crop to bring to maturity. Patience, care and skill are necessary to show a profit for this and other difficult crops — Taxus and broad-leaved evergreens. Experienced growers have long been searching for ways to cut labor and costs, and improve quality.

Proof that Bird Vita-Bands are invaluable lies in the history of such a crop. Holly was rooted in January, placed in Bands in frames in April, carried there for 1½ to 2 years, and *then* placed in field with excellent results. Potting is eliminated, and the entire operation is reduced to taking cuttings from the rooting bench directly to frames where they're placed in Bands — slow handling of pots is eliminated, and large quantities of cuttings can be easily moved to the frames at this stage. Plants make better growth during their time in frames. Water loss is cut greatly, less care needed — *and* Bird Vita-Bands greatly increase frame capacity! Order from supplier's catalog, or write us direct. Bird & Son, inc., Dept. AN-5, East Walpole, Massachusetts.



VITA-BAND 10 for short growing periods. Will usually contain root growth up to approximately 8 to 10 weeks. Nutrient-treated with quickly available plant food . . . your judgment determines need for additional feeding. Especially good for annuals and vegetables.

**BIRD
& SON, inc.**
Established 1895

PLANT BANDS Sold in units of 1000 only	PRICE PER 1000—SIZES IN INCHES							
	1½ x 1½ x 2½	1½ x 1½ x 2½	2 x 2 x 2½	2 x 2 x 3	2½ x 2½ x 3	3 x 3 x 3	4 x 4 x 3	4 x 4 x 4
VITA-BAND 10	3.60	3.90	4.40	4.90	5.85	6.75	8.85	11.10

Prices higher in Rocky Mtn., Pacific Coast, Texas and Gulf State areas.

BIRD VITA-BANDS • TOM THUMB FLATS • VITA-POTS • RED POTS

Vermont Nursery and Tree Conference

By Edward P. Hume

A one-day conference for nurserymen and shade tree experts, held January 12 at the new agricultural science building of the University of Vermont, Burlington, was attended by thirty-eight persons.

New Sprays and Dusts.

The first talk was given by C. L. Calahan, extension horticulturist, on "The New Sprays and Dusts." He pointed out that we are living in a so-called organic era. In the past ten years the advance in the development of insecticides and related products has overshadowed all the progress before that time. Previously, there were five distinct classes of spraying or dusting materials: Arsenates, coppers, sulphurs, oils and plant products. Now there are more than 4,000 products available on the market. DDT, for instance, is available in six forms, each of which is prepared in several formulations; DDT is manufactured under numerous brand names, and it is often mixed with other insecticides.

The older materials usually were directed toward one or, at the most, a few insects. Today's insecticides, while sometimes specified as effective for a specific group of insects, often kill a wide variety of insects, including some types which nurserymen prefer to keep alive.

Mr. Calahan said that new materials are generally more effective than older ones as insecticides and are being used in considerably lighter dilutions without sacrificing percentage kill. Often these materials are less damaging to the plants than the older forms. Also, while the older insecticides were confined to one or two forms of action, such as a stomach poison or contact poison, the newer insecticides kill in several different ways, and some even are effective in several ways at the same time. Some of these actions are as a stomach poison, contact poison, fumigant, repellent and irritant.

Among the fungicides, no one yet has developed the all-purpose material, he stated. Included among the various types of fungicides already manufactured are the mercury compounds, of which several brands are available on the market. The Ferbam type is particularly good for cedar apple rust and, under certain conditions, actually invigorates the host plant; the Phygon type is difficult to handle and may be toxic to plants.

The older forms of fungicides, such as the sulphurs, now are formulated in better ways for greater activity and less danger to plants. Similarly, oils are much better refined, resulting in less toxicity to plants. Fungicidal oils should be purchased from reputable dealers, as it is impossible from a general examination to tell the difference between the highly refined and less valuable products.

There will be a considerable scarcity of some so-called hydrocarbons, such as DDT and perhaps BHC, Mr. Calahan prophesied. And he concluded his talk with a special discussion of the organic phosphates, pointing out their wide range of action and the possible dangers involved in their use. He illustrated this with slides showing how to take the necessary precautions to avoid injury.

Value of Cost Accounting.

The second talk, given by R. P. Story, professor of agricultural economics, was devoted to "Cost-accounting Methods for Nurserymen and Tree Experts." He recommended

keeping only such accounts as are necessary for income tax purposes and can be of value to the nurseryman. If cost-accounting records are not put to use, they are of no value.

He pointed out that a good system of cost accounting is one of the most useful tools for properly evaluating a business and for increasing profits. A good system will help the nurseryman to make decisions concerning what changes will benefit the business and how best to invest capital. The type of record to keep should be adapted to each individual's needs. At the end of each year, the information should be analyzed and the results of the analysis should be included in improvements for conducting the business the following year. Since cost accounting goes beyond actual cash transactions, non-

If you want RHODODENDRONS for growing on, get in touch with us. We have a large stock of 1, 2 and 3-year grafts in varieties such as *Caractacus*, *Catawbiense Grandiflorum* and *Boursault*, Dr. V. H. Rutgers, Dr. H. C. Dresselhuys, Dr. H. J. Lovink, Edward S. Rend, *Everestianum*, F. D. Godman, *Ignatius Sargent*, *Parson's Gloriosum*, *Roseum Elegans*, *van der Broeke*, *van der Hoop*, etc.

Don't forget to try some of our new Hybrids: *El Alamein*, *General Eisenhower*, *Kluis Sensation*, *Kluis Triumph* and *Spitfire*.

Prices and further particulars will be gladly sent on application.

KLUIS' NURSERIES

POMPTON PLAINS, N. J.

ILEX BULLATA

One of the new varieties of Jap. Holly in great demand. It has small, shiny, convex leaves. Grows rapidly at first, then slows down. Shears well. It can be used in sun or shade and contrasts well with both broad-leaved and narrow-leaved evergreens. It makes the finest low evergreen hedge. Easy to grow, and faster than yews. Sells on sight.

4 to 6 ins., 2-yr., T, \$15.00 per 100
6 to 8 ins., 2-yr., T, \$20.00 per 100.

ALANWOLD NURSERY
NESHAMINY, Bucks Co., PA.

SHADE AND NUT TREES

Elm, American	Each	Per 10
6 to 8 ft.....	\$1.60	\$14.00
8 to 10 ft.....	2.00	17.50
10 to 12 ft.....	2.50	22.50
Elm, Chinese		
5 to 6 ft.....	1.10	10.00
6 to 8 ft.....	1.60	14.00
8 to 10 ft.....	2.00	17.50
Flowering Crab, Eleyi		
3 to 4 ft.....	.75	6.50
4 to 6 ft.....	1.20	10.00
Hackberry		
5 to 6 ft.....	1.75	16.00
6 to 8 ft.....	2.50	22.50
8 to 10 ft.....	3.00	27.50
Linden, American		
8 to 10 ft.....	3.00	27.50
10 to 12 ft.....	4.00	37.50
Poplar, Lombardy		
6 to 8 ft.....	.85	7.50
8 to 10 ft.....	1.20	10.00
10 to 12 ft.....	1.60	14.00
Poplar, Bolleana		
6 to 8 ft.....	1.60	14.00
8 to 10 ft.....	2.00	17.50
10 to 12 ft.....	2.75	25.00
Texas Umbrella		
4 to 5 ft.....	1.35	12.00
5 to 6 ft.....	1.75	15.00
6 to 8 ft.....	2.00	17.50
Black Walnut	Per 10	Per 100
4 to 6 ft.....	\$ 9.00	\$ 80.00
6 to 8 ft.....	12.50	115.00
8 to 10 ft.....	16.50	150.00
Papershell Pecan		
4 to 6 ft.....	12.50	115.00
6 to 7 ft.....	16.00	145.00
7 to 8 ft.....	18.00	
American Filbert		
4 to 5 ft.....	12.50	
6 to 7 ft.....	15.00	

Write for Wholesale Price List on Fruit Trees, other sizes in Nut Trees and Ornamental Plant Material.

WAYNESBORO NURSERIES
WAYNESBORO, VIRGINIA

MICHIGAN-GROWN SHRUBS FRUIT TREES

The following well grown material is offered to the trade for shipment in early spring, 1951.

FRUIT TREES

All Fruit Trees are dug, graded and in our cellar and can be shipped on short notice.

Apple Trees	Per 10	Per 100
1-in. and up.....	\$4.50	\$50.00
11/16-in. and up.....	4.50	40.00
1-in. up 11/16-in. up		
Baldwin.....	100	
Cortland.....	100	
Delicious, Red.....	200	
Delicious, Yellow.....	100	
Duchess.....	30	100
Fameuse.....	50	100
Golden Russet.....	25	50
Jonathan.....	250	
McIntosh.....	50	200
Northern Spy.....	100	100
Red Spy.....	100	100
Yellow Transparent.....	200	
Hyslop Crab.....	50	
Pear Trees	Per 10	Per 100
1-in. and up.....	\$9.00	\$75.00
11/16-in. and up.....	7.00	50.00
1-in. up 11/16-in. up		
Bartlett.....	1000	
Clapp's Favorite.....	100	
Flemish Beauty.....	100	100
Beurre Bosc.....	150	
Conference.....	100	
Kieffer.....	100	100
Seckel.....	200	
Cherry Trees (short tops)	Per 10	Per 100
11/16-in. and up.....	\$7.50	\$70.00
9/16-in. and up.....	6.50	60.00
7/16-in. and up.....	5.00	45.00
11/16-in. 9/16-in. 7/16-in.		
Early Richmond.....	200	
Montmorency.....	500	1000 500

FLOWERING TREES

All flowering trees are dug and graded in our cellar for early spring shipment, except items marked F, which are still in the field.

	Per 10	Per 100
50 D. F. Peach, Pink, 5 to 6 ft.....	\$ 9.00	\$80.00
50 D. F. Peach, Pink, 4 to 5 ft.....	7.50	65.00
30 D. F. Peach, Pink, 3 to 4 ft.....	5.50	45.00
100 D. F. Peach, White, 5 to 6 ft.....	9.00	80.00
50 D. F. Peach, White, 4 to 5 ft.....	7.50	65.00
70 D. F. Peach, White, 3 to 4 ft.....	5.50	45.00
150 Prunus Cistena, 4 to 5 ft.....	10.00	90.00
100 Prunus Cistena, 3 to 4 ft.....	7.50	70.00
23 Prunus Cistena, 2 to 3 ft.....	5.00	40.00
100 Prunus Newport, 5 to 6 ft.....	10.00	90.00
100 Prunus Newport, 4 to 5 ft.....	7.50	70.00
50 Prunus Newport, 3 to 4 ft.....	5.00	40.00
500 F Prunus Tomentosa, 2 to 4 ft.....	7.00	60.00
200 F Prunus Tomentosa, 2 to 2 ft.....	6.00	50.00
100 F Prunus Tomentosa, 18 to 24 ins.....	5.00	40.00
100 Prunus Triloba, 3 to 4 ft.....	8.50	75.00
50 Prunus Triloba, 2 to 3 ft.....	7.00	60.00
100 Prunus Besseyi, 3 to 4 ft.....	5.00	40.00
200 Prunus Besseyi, 2 to 3 ft.....	4.00	30.00
50 Prunus Besseyi, 18 to 24 ins.....	3.00	20.00
50 Prunus Maritima, 3 to 4 ft.....	7.00	60.00
100 Prunus Maritima, 2 to 3 ft.....	6.00	50.00
150 Prunus Maritima, 18 to 24 ins.....	5.00	40.00
50 Prunus Maritima, 12 to 18 ins.....	4.00	30.00

FLOWERING SHRUBS

Items marked F are in the field, balance of stock graded and in storage for early spring shipment. All shrubs are heavy, well branched material in sizes and grades specified.

	Per 10	Per 100
50 Almond, Pink, Dbl.-fl., 3 to 4 ft.....	\$ 6.00	
200 Almond, Pink, Dbl.-fl., 2 to 3 ft.....	4.50	\$40.00
100 Almond, Pink, Dbl.-fl., 18 to 24 ins.....	4.00	35.00
100 Althaea, White, 3 to 4 ft.....	5.00	45.00
100 Althaea, White, 2 to 3 ft.....	4.00	35.00
100 Althaea, White, 18 to 24 ins.....	3.00	25.00
100 Althaea, Pink, 3 to 4 ft.....	5.00	45.00
100 Althaea, Pink, 2 to 3 ft.....	4.00	35.00
100 Althaea, Pink, 18 to 24 ins.....	3.00	25.00
100 Althaea, Purple, 3 to 4 ft.....	5.00	45.00
100 Althaea, Purple, 2 to 3 ft.....	4.00	35.00
100 Althaea, Purple, 18 to 24 ins.....	3.00	25.00
100 Althaea, Red, 3 to 4 ft.....	5.00	45.00
100 Althaea, Red, 2 to 3 ft.....	4.00	35.00
100 Althaea, Red, 18 to 24 ins.....	3.00	25.00
100 Barberr, Thunbergi, 2 to 3 ft.....	5.00	45.00
500 Barberr, Thunbergi, 18 to 24 ins.....	3.50	30.00
500 Barberr, Thunbergi, 12 to 18 ins.....	2.50	20.00
500 Barberr, Red-leaved, 2 to 3 ft.....	6.50	60.00
500 Barberr, Red-leaved, 18 to 24 ins.....	4.00	45.00
500 Barberr, Red-leaved, 12 to 18 ins.....	4.00	35.00
50 Caragana Arborecens, 3 to 4 ft.....	4.00	
50 Caragana Arborecens, 2 to 3 ft.....	3.00	

FLOWERING SHRUBS (cont'd)

	Per 10	Per 100
87 Cephalanthus Occidentalis, 3 to 4 ft.....	\$ 5.00	
67 Cephalanthus Occidentalis, 2 to 3 ft.....	4.00	
30 Cephalanthus Occidentalis, 18 to 24 ins.....	3.00	
50 Cornus Elegantisima, 3 to 4 ft.....	10.00	
50 Cornus Elegantisima, 18 to 24 ins.....	5.50	
78 Cornus Paniculata, 3 to 4 ft.....	5.50	
25 Cornus Paniculata, 2 to 3 ft.....	4.50	
130 Cornus Stolonifera, 4 to 5 ft.....	7.50	\$65.00
450 Cornus Stolonifera, 3 to 4 ft.....	6.00	50.00
500 Cornus Stolonifera, 2 to 3 ft.....	4.50	40.00
86 Cornus Stolonifera, 18 to 24 ins.....	3.50	30.00
175 Cornus Stolonifera, 3 to 4 ft.....	5.50	50.00
400 Cornus Stolonifera, 2 to 3 ft.....	4.50	
69 Cornus Stolonifera, 18 to 24 ins.....	3.50	
90 Cornus Sibirica Alba, 4 to 5 ft.....	6.50	60.00
300 Cornus Sibirica Alba, 3 to 4 ft.....	5.50	50.00
150 Cornus Sibirica Alba, 2 to 3 ft.....	4.50	40.00
30 Cornus Sibirica Alba, 18 to 24 ins.....	3.50	
150 Cornus Amomum, 3 to 4 ft.....	5.00	45.00
80 Cotoneaster Foveolata, 2 to 3 ft.....	6.50	
30 Cotoneaster Foveolata, 18 to 24 ins.....	3.50	
100 Deutzia Lemnol, 2 to 3 ft.....	5.50	50.00
100 Deutzia Lemnol, 18 to 24 ins.....	4.50	40.00
100 Deutzia Fride of Roch, 3 to 4 ft.....	5.00	45.00
100 Deutzia Gracilis Rosea, 2 to 3 ft.....	5.50	50.00
150 F Elaeagnus Angustifolia, 5 to 6 ft.....	7.50	70.00
200 F Elaeagnus Angustifolia, 4 to 5 ft.....	6.50	60.00
200 Elaeagnus Argentea, 2 to 3 ft.....	5.00	45.00
150 Elaeagnus Argentea, 18 to 24 ins.....	4.00	35.00
20 Elaeagnus Argentea, 18 to 24 ins.....	3.00	
100 Forsythia Fortunei, 4 to 5 ft.....	6.50	60.00
100 Forsythia Fortunei, 3 to 4 ft.....	5.50	50.00
100 Forsythia Intermedia, 4 to 5 ft.....	6.50	60.00
100 Forsythia Intermedia, 3 to 4 ft.....	5.50	50.00
100 Forsythia Sieboldi, 4 to 5 ft.....	6.50	60.00
100 Forsythia Sieboldi, 3 to 4 ft.....	5.50	50.00
100 Forsythia Var. Aurea, 3 to 4 ft.....	7.50	70.00
46 Forsythia Var. Aurea, 2 to 3 ft.....	6.50	60.00
100 Hydrangea P. G., 2 to 3 ft.....	5.50	50.00
250 Hydrangea P. G., 18 to 24 ins.....	4.50	40.00
200 Hydrangea A. G., 2 to 3 ft.....	5.50	50.00
100 Hydrangea A. G., 18 to 24 ins.....	4.50	40.00
100 F Hypericum Densifl., 18 to 24 ins.....	4.00	35.00
100 F Hypericum Densifl., 15 to 18 ins.....	3.00	25.00
300 Lonicera Beis Albida, 4 to 5 ft.....	6.00	55.00
100 Lonicera Beis Albida, 3 to 4 ft.....	5.00	45.00
85 Lonicera Grandiflora, 4 to 5 ft.....	6.00	55.00
100 Lonicera Grandiflora, 3 to 4 ft.....	5.00	45.00
110 Lonicera Morrowi, 5 to 6 ft.....	7.50	70.00
100 Lonicera Morrowi, 4 to 5 ft.....	6.00	55.00
100 Lonicera Morrowi, 3 to 4 ft.....	5.00	45.00
100 Lonicera R. Wheeling, 4 to 5 ft.....	7.50	70.00
100 Lonicera R. Wheeling, 3 to 4 ft.....	6.50	60.00
67 Lonicera Xylosteum, 3 to 4 ft.....	5.00	45.00
100 Lonicera Zabell, 3 to 4 ft.....	5.50	50.00
100 Lonicera Zabell, 2 to 3 ft.....	4.50	40.00
100 Philadelphia Lemnol, 2 to 3 ft.....	4.00	35.00
575 Philadelphia Grand., 4 to 5 ft.....	6.00	55.00
600 Philadelphia Grand., 3 to 4 ft.....	5.00	45.00
100 Philadelphia Grand., 2 to 3 ft.....	4.00	35.00
100 Philadelphia Pyr., 3 to 4 ft.....	5.00	45.00
100 Philadelphia Pyr., 2 to 3 ft.....	4.00	35.00
300 Philadelphia Nivalis, 3 to 4 ft.....	4.00	35.00
100 Physocarpus Opul., 3 to 4 ft.....	5.00	45.00
50 Physocarpus Aurea, 3 to 4 ft.....	5.00	45.00
400 F Physocarpus Monogyna, 3 to 4 ft.....	5.00	45.00
300 F Physocarpus Monogyna, 2 to 3 ft.....	4.00	35.00
100 Rhamnus Cathartica, 4 to 5 ft.....	5.00	45.00
100 Rhamnus Cathartica, 3 to 4 ft.....	4.00	35.00
70 Rhamnus Cathartica, 2 to 3 ft.....	3.00	
400 F Salix Purpurea, 30 to 36 ins.....	4.00	30.00
300 F Salix Purpurea, 24 to 30 ins.....	3.50	25.00
100 Symphoricarpos Chenaulti, 2 to 3 ft.....	4.00	30.00
100 Symphoricarpos Racemosus, 18 to 24 ins.....	5.00	25.00
100 Symphoricarpos Racemosus, 2 to 3 ft.....	4.00	35.00
100 Symphoricarpos Racemosus, 18 to 24 ins.....	3.00	25.00
100 Symphoricarpos Vulgaris, 2 to 3 ft.....	3.50	25.00
100 Symphoricarpos Vulgaris, 18 to 24 ins.....	2.50	20.00
100 Spiraea Anthony Waterer, 2 to 3 ft.....	5.00	45.00
100 Spiraea Anthony Waterer, 18 to 24 ins.....	4.00	35.00
200 Spiraea Arguta, 2 to 3 ft.....	4.00	35.00
200 Spiraea Arguta, 18 to 24 ins.....	3.00	25.00
200 Spiraea Froebeli, 18 to 24 ins.....	3.50	30.00
100 Spiraea Salicifolia, 2 to 3 ft.....	3.50	30.00
200 Spiraea Salicifolia, 18 to 24 ins.....	3.00	25.00
300 F Viburnum Dentatum, 4 to 5 ft.....	6.50	60.00
500 F Viburnum Dentatum, 3 to 4 ft.....	5.50	50.00
300 F Viburnum Dentatum, 2 to 3 ft.....	4.50	40.00
300 F Viburnum Lantana, 2 to 3 ft.....	5.50	50.00
300 F Viburnum Lantana, 4 to 5 ft.....	6.50	60.00
300 F Viburnum Lentago, 3 to 4 ft.....	5.50	50.00
200 F Viburnum Lentago, 2 to 3 ft.....	4.50	40.00
200 F Viburnum Opulus, 3 to 4 ft.....	5.50	50.00
100 Weigela Amabilis, 18 to 24 ins.....	4.50	40.00
100 Weigela Eva Rathke, 18 to 24 ins.....	5.50	50.00
100 Weigela Eva Rathke, 12 to 18 ins.....	4.50	40.00
100 Weigela Floribunda, 2 to 3 ft.....	5.50	50.00
200 Weigela Rosea, 3 to 4 ft.....	5.50	50.00
100 Weigela Rosea, 2 to 3 ft.....	4.50	40.00

Terms: For cash with order, deduct 2 per cent. Usual terms to members of A. A. N. Boxing and packing extra at cost. Reserve your stock now for shipment when desired. Write, wire or phone your orders to

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Spring, 1951

1,000,000 transplanted liners, 2, 3 and 4 years in field beds. X indicates times transplanted.

Not less than 25 of a variety at 100 rate. 500 or more take 1000 rate.

Terms: Cash with order and packing free; otherwise, 1/3 deposit with order and balance C.O.D. and packing charged. Shipment by express only. Japanese beetle certification upon request.

	100 rate each		100 rate each
<i>Abelia grandiflora</i> , R.C.	\$.010	<i>Juniperus horizontalis glauca</i> ,	
<i>Althaea syriacus</i> ,		10 to 15 ins., XX, 3-yr.	\$.035
5 to 10 ins., S, 1-yr.	.03	<i>Juniper, Irish</i> ,	
10 to 20 ins., S, 2-yr.	.05	8 to 12 ins., XX, 2-yr.	.25
<i>Azalea knaempferi</i> ,		12 to 15 ins., XX, 3-yr.	.40
9 to 12 ins., XXX, 3-yr.	.65	<i>Koeleruteria paniculata</i> ,	
<i>Azalea mollis</i> ,		15 to 20 ins., 2-yr.	.25
12 to 18 ins., XXX, 3-yr.	1.00	<i>Laburnum vulgare</i> , S, 1-yr.	.10
<i>Buxus welleri</i> , 4 to 8 ins., X, 2-yr.	.20	<i>Larix europaea</i> , 12 to 24 ins., 2-yr.	.18
<i>Calycanthus floridus</i> ,		<i>Leucothoe catesbaei</i> ,	
6 to 10 ins., S, 2-yr.	.05	4 to 6 ins., XX, 3-yr.	.25
<i>Chamaecyparis filifera aurea</i> ,	.10	6 to 10 ins., XX, 3-yr.	.35
6 to 12 ins., X, 2-yr.	.25	<i>Liquidambar styraciflua</i> , S, 1-yr.	.08
<i>Chamaecyparis lawsoniana</i> ,		<i>Philadelphus virginialis</i> , X, 2-yr.	.15
8 to 12 ins., 2-yr.	.10	<i>Picea excelsa</i> , 4 to 10 ins., 2-yr.	.10
<i>Chamaecyparis laws. alumi</i> ,		<i>Pieris japonica</i> ,	
10 to 15 ins., XX, 2-yr.	.22	6 to 8 ins., XXX, 2-yr.	.45
<i>Chamaecyparis laws. pendula</i> ,		<i>Pieris mariana</i> , 8 to 10 ins., X, 2-yr.	.35
10 to 15 ins., 3-yr.	.15	<i>Pinus mughus</i> , 2 to 3 ins., 2-yr.	.08
<i>Cotoneaster horizontalis</i> , X, 2-yr.	.20	3 to 6 ins., X, 3-yr.	.15
<i>Cotoneaster microphylla</i> , 2-yr.	.15	<i>Pinus nigra</i> , 6 to 10 ins., 2-yr.	.10
<i>Cytisus alpinus</i> , S, 1-yr.	.10	<i>Pinus strobus</i> , 4 to 8 ins., 2-yr.	.08
<i>Cytisus scoparius</i> , X, 3-yr.	.20	<i>Pinus sylvestris</i> , 4 to 8 ins., 2-yr.	.08
<i>Euonymus carrierei</i> ,		S, 1-yr.	.05
4 to 6 ins., X, 1-yr.	.15	(500 or more at 1000 rate)	.03
<i>Euonymus coloratus</i> ,		<i>Pyracantha lalandi</i> ,	
6 to 12 ins., XX, 2-yr.	.22	6 to 12 ins., X, 2-yr.	.20
4 to 6 ins., X, 1-yr.	.15	<i>Quercus palustris</i> , 6 to 12 ins., 2-yr.	.10
<i>Euonymus fortunei erectus</i> ,		12 to 24 ins., XXX, 3-yr.	.15
4 to 6 ins., X, 1-yr.	.15	<i>Rhododendron hybrid</i> ,	
8 to 15 ins., XX, 2-yr.	.20	5 to 8 ins., XXX, 3-yr.	.55
12 to 18 ins., XXX, 3-yr.	.35	8 to 12 ins., XXX, 3-yr.	.85
<i>Euonymus vegetus</i> ,		<i>Sophora japonica</i> , 1-yr. sdig.	.08
4 to 6 ins., X, 1-yr.	.15	<i>Taxus capitata</i> ,	
6 to 8 ins., X, 2-yr.	.20	6 to 8 ins., XX, 3-yr.	.25
8 to 15 ins., XX, 2-yr.	.25	<i>Taxus cuspidata</i> ,	
<i>Ilex crenata</i> ,		6 to 10 ins., XX, 2-yr.	.25
2 to 5 ins., X, 1-yr.	.15	10 to 15 ins., XX, 3-yr.	.35
4 to 6 ins., XX, 2-yr.	.22	<i>Taxus media hufelid</i> ,	
5 to 10 ins., XX, 3-yr.	.35	4 to 6 ins., XX, 2-yr.	.18
<i>Ilex crenata bullata</i> ,		6 to 8 ins., XX, 2-yr.	.25
3 to 6 ins., X, 1-yr.	.15	<i>Taxus media hicksi</i> ,	
4 to 6 ins., XX, 2-yr.	.20	4 to 6 ins., XX, 2-yr.	.18
6 to 8 ins., XX, 2-yr.	.25	6 to 8 ins., XX, 2-yr.	.25
<i>Ilex glabra</i> ,		<i>Thuja occ. elegantissima lutea</i> ,	
6 to 10 ins., XX, 2-yr.	.30	6 to 8 ins., XX, 2-yr.	.25
12 to 15 ins., XXX, 4-yr.	1.00	<i>Thuja occ. globosa</i> ,	
<i>Ilex rotundifolia</i> ,		XX, 6 to 8 ins., 2-yr.	.25
3 to 5 ins., X, 1-yr.	.15	<i>Thuja occ. globosa nana</i> ,	
4 to 6 ins., XX, 2-yr.	.20	4 to 6 ins., XX, 2-yr.	.25
6 to 8 ins., XX, 2-yr.	.25	<i>Thuja occ. pilcata</i> ,	
<i>Juniper, Andorra</i> ,		6 to 10 ins., XX, 3-yr.	.25
6 to 8 ins., XX, 2-yr.	.25	10 to 15 ins., XX, 3-yr.	.35
9 to 12 ins., XX, 2-yr.	.35	<i>Thuja orientalis</i> , 6 to 12 ins., 2-yr.	.10
<i>Juniperus can. aurea</i> ,		<i>Tsuga canadensis</i> ,	
5 to 8 ins., XX, 2-yr.	.25	6 to 8 ins., XX, 3-yr.	.30
<i>Juniperus glauca hetal</i> ,		8 to 12 ins., XX, 3-yr.	.25
8 to 10 ins., X, 2-yr.	.25	<i>Viburnum opulus</i> , S, 1-yr.	.08
10 to 15 ins., XX, 2-yr.	.35	12 to 24 ins., 2-yr.	.18
12 to 18 ins., XXX, 2-yr.	.40		

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cash items must be included, such as interest on investments, unpaid labor, depreciation and fertility carry-over in the field.

Tree experts find this type of information extremely valuable to determine the per-hour rate for various activities which give them a basis for bidding on contract work, Professor Story said. Nurserymen need a cost-accounting system because the long cycle of plant growth requires proper allocation of the charges against each block of plants.

Use of Mist Blowers.

The afternoon session began with a talk on "Mist Blowers, Their Advantages and Disadvantages," by George Tirrell, Greenfield, Mass., representing the A. B. Farquhar Co., York, Pa. He pointed out that both nurserymen and arborists, by securing sample information concerning the operation of mist blowers, can save themselves much irritation and, perhaps, lawsuits resulting from improper usage. He illustrated this by charts, showing particle size and the velocity necessary to carry the particles of various sizes. He pointed out that mist blowers were developed originally for gypsy moth control in New England. The machines were able effectively to control all insects within 500 feet of any roadway on which they could be operated. He stated that mist blowers can spray effectively from one side, whereas the hydraulic rigs must reach the trees from both sides.

The mist blowers can carry insecticidal materials beyond the point where any leaf movement can be noted. The spray material does not need to leave a visible residue on the leaf to be effective, he said. DDT can be effective at rates down to one and one-half pounds per acre and, on certain insects, as low as one-quarter pound per acre. Hydraulic rigs, however, lose a portion of all sprays through drip, and this trouble is aggravated during rain or when leaves are wet. At such times, however, the mist blower actually dries out the foliage rather than increases the runoff; so it is more adapted to use under rainy conditions. A mist blower cannot blow into the wind, but, when it is used at 45 degrees to the wind, the wind assists in developing a greater distance of penetration and higher elevation because the leaves act as baffles.

The use of dust has not proved as efficient in the mist blower as has the use of sprays. Because of its long range, the mist blower must be supplied with enough material of suffi-

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TALLMADGE, OHIO

- Non-rusting aluminum frames available in 1, 2, 3, 4 or 5-panel sizes!
- All panels of heavy-gauge aluminum, double-coated and lettered on both sides in durable enamel — easy to change, easy to keep clean.
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Gentlemen: Please send me, without obligation, a free folder and price list of Sales Booster Signs.

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grown at High Altitude, in the heart of the
ORIGINAL PENNSYLVANIA PINE FORESTS

	Per 100	Per 1000
American Red Pine, 2-0, 2 to 3 ins.	\$3.50	\$30.00
American Red Pine, 3-0, 4 to 8 ins.	5.00	40.00
American Red Pine, 3-0, 8 to 12 ins.	6.00	50.00
Scotch Pine, 2-0, 2 to 3 ins.	3.00	18.00
Scotch Pine, 2-0, 3 to 5 ins.	3.50	30.00
Scotch Pine, 3-0, 7 to 15 ins.	4.50	...
Oriental Red Pine, 2-0, 2 to 3 ins.	3.00	25.00
Oriental Red Pine, 2-0, 3 to 5 ins.	4.00	30.00
Pitch Pine, 3-0, 8 to 14 ins.	2.50	20.00
Austrian Pine, 2-0, 2 to 5 ins.	3.50	30.00
White Pine, 3-0, 3 to 5 ins.	3.50	30.00
White Pine, 3-0, 5 to 8 ins.	4.50	40.00
Mugho Pine (Dwarf), 2-0, 2 to 3 ins.	2.50	20.00
Mugho Pine (Dwarf), 3-0, 3 to 5 ins.	3.50	30.00
European Larch (Deciduous), 3-0, 4 to 8 ins.	2.50	20.00
European Larch (Deciduous), 3-0, 8 to 16 ins.	4.00	30.00
Japanese Larch (Deciduous), 2-0, 3 to 5 ins.	2.50	20.00
Japanese Larch (Deciduous), 2-0, 5 to 9 ins.	4.00	30.00
Norway Spruce, 2-0, 3 to 4 ins.	3.00	20.00
Norway Spruce, 3-0, 4 to 6 ins.	3.50	30.00
Norway Spruce, 3-0, 6 to 10 ins.	5.00	40.00
Colorado Blue Spruce, 3-0, 3 to 6 ins.	5.00	40.00
Douglas Fir, 2-0, 3 to 5 ins.	3.50	30.00
Douglas Fir, 2-0, 5 to 8 ins.	4.50	40.00
*Balsam Fir, 3-0, 3 to 5 ins.	4.00	35.00

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Nursery: Pine Flats, Pa.

INDIANA, PA.

MAPLES LINING-OUT STOCK

Acer saccharum	Per 10	Per 100
3 to 4 ft.	\$ 3.50	\$ 25.00
4 to 5 ft.	6.00	50.00
5 to 6 ft.	7.50	60.00
6 to 8 ft.	12.00	90.00
8 to 10 ft.	17.50	145.00

We also have to offer *Acer saccharum* in sizes from 1 1/2-in. cal. up through 10-in. cal.

We can supply *Acer rubrum* in sizes from 1 1/4-in. cal. up to 3-in. cal.

Write for price list.

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Hoosick Falls, N. Y.

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Seedlings and Transplants

For Spring, 1951
Write for price list.

SUNCREST EVERGREEN NURSERIES
JOHNSTOWN, PA.

EVERGREENS

Northern-grown

CANADIAN HEMLOCK
AMERICAN ARBORVITAE
BALSAM FIR

	Per 100	Per 1000
2 to 4 ins., sdgls.	\$ 1.00	\$ 5.00
3 to 6 ins., sdgls.	2.00	10.00
* 6 to 9 ins., sdgls.	3.00	20.00
* 9 to 12 ins., sdgls.	7.00	45.00
* 12 to 18 ins., sdgls.	9.00	70.00
* 18 to 24 ins., sdgls.	25.00	...

*Limited quantity of Arborvitae.

Freshly collected. Well rooted. Puddled and packed in sphagnum moss. Catalog of plants, ferns, etc., on request.

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PACHYSANDRA

The ideal permanent evergreen ground cover plant for shady areas in all climates. Strong, well rooted, 1-yr.-old plants, \$3.75 per 100; \$35.00 per 1000; 5000 or more at \$32.50.

PEEKSKILL NURSERY SHRUB OAK, N. Y.

cient toxicity to effect the necessary killing of the insect against which it is directed. Mist blowers are of simple construction, requiring little special education to operate. But they are a precision type of equipment.

Lily Growing in Northeast.

In a talk on "Lilies and Lily Growing," Alan MacNeil, Sandyloam Nurseries, North Springfield, stated that lilies were rated as having among the highest value per acre of any crop. In the northeastern United States, the season is shorter than on the west coast; so it takes longer for the lilies to mature, but this shorter season also is an advantage to growers in the northeast, who can place their bulbs on the market about a month before west coast lilies are available.

He thought that the lilies grown in the northeast are more solid and of better quality and usually produce more flowers per stem; however, their smaller size makes it more difficult for nurserymen to sell the plants to the consumers.

One of the blights which face growers in the northeast is botrytis, which comes in May and June, defoliating but not actually killing the plants, but tremendously reducing subsequent bulb size. This disease can be controlled by proper use of Bordeaux, which must be applied with a good spreader-sticker. Another disease, mosaic, appears in many forms. It is impossible to mix a program of growing mosaic-tolerant varieties with susceptible varieties of lilies. The nurseryman either must grow the susceptible varieties, taking special precautions to avoid introducing the disease, or he must grow the tolerant varieties. Another disease, basal rot, is a chief reason why lilies are expensive, Mr. MacNeil said, and the best control for this disease is to supply excellent drainage.

Mr. MacNeil recommended propagating lilies from scales which are laid on sand and covered by damp sphagnum moss until the new plantlets are formed. Propagation from seeds takes long, but the plants will be mosaic-free. He advised that growers stick to varieties which grow easily for them, choosing those which are in demand, such as *L. superbum*, *L. canadense*, *L. auratum*, *L. regale*, *L. candidum*, *L. tigrinum* and *L. speciosum rubrum*. In the white variety the last-named requires a longer season. The white, pink and yellow varieties all are in demand, since there is an overabundance of reds.

There are many newer varieties of lilies for which a market has not been

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Order NOW for Spring Selling

Expertly grown, these 2-year-old, field-grown bushes are scientifically wrapped and waxed to retain full vigor. Colored label and planting instructions on each package. Plants are held under ideal storage conditions for shipment now or later.

Available in collections of 100 bushes, 25 varieties, or more, included, in a wide range of colors. 75 per cent are Everblooming Hybrid Teas, 25 per cent are Climbers.

Abnormal weather conditions have made a very short crop this year. We suggest you order without delay!

COLLECTION "A"

100 Assorted Roses
No. 1 Grade
\$55.00 per collection

COLLECTION "B"

100 Assorted Roses
No. 1½ Grade
\$45.00 per collection



GLADIOLUS BULBS

12 No. 1 Bulbs per Box

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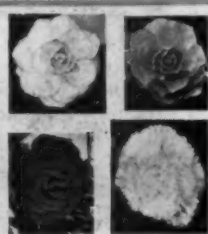
Colors available: Red, Pink, White, Yellow, Lavender, Mixed. Minimum order is 20 boxes. Specify colors, or we will make up an assortment for you.

Prices:

42c each in lots of 20
40c each in lots of 40
38c each in lots of 100

TUBEROUS BEGONIAS

Double Type, Mixed



TUBEROUS-ROOTED BEGONIAS

Double, Camellia Type

Belgian-grown. Each package contains 4 different colors, and the 4 varieties are shown in color. Planting instructions on the back. A very attractive and very popular seller. Prices:

50c each in lots of 20
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PERENNIALS

Roots wrapped in sphagnum moss and waterproof paper. Colored label and planting instructions on each package.

BLEEDING HEART (Spectabilis). Large, pink, heart-shaped flowers. Large clumps.

40c each

PEONIES. Red, White and Pink. Large 3 to 5-eye divisions.

35c each

DAHLIAS

Large-flowering Dahlias, assorted types and colors. Packed in an attractive colored carton. Each carton will contain six large tubers.



50c each in lots of 12; 45c each in lots of 60.

TERMS: 2% 10 days; 30 days net if credit is established, otherwise cash with order, less 2% F.O.B. Michigan. Subject to prior sale.

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Lily bulbs are packed 50 bulbs per box. Large, colored picture supplied with each box. Bulbs available in three sizes.

50 bulbs at 100 rate

	Prices per 100		
	Small	Medium	Large
Regal Lily. White.....	\$ 5.50	\$10.50	\$16.00
Tiger Lily. Orange.....	5.50	8.50	....
Rubrum Lily. Pink.....	15.00	25.00	30.00
Auratum Lily. Gold-band.....	15.00	25.00	30.00

MISCELLANEOUS BULBS

Anemones, Montbretias, Ranunculi, Tigridias, Tuberoses, Callas, etc. All attractively packaged.

50 packages, assorted.....\$12.00
100 packages, assorted.....20.00

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Phone: Farmington 1890

FLOWER SEEDS IN BULK—FRESHLY PACKED

ANCHUSA		
capensis Blue Bird	1/4 oz.	\$0.25
italica (azurea) Dropmore	1/4 oz.	.30
italica Lissadel	1/4 oz.	.30
italica Opal, light blue	1/4 oz.	.30

ANEMONE		
coronaria Queen, blue	1/4 oz.	.40
coronaria, deep scarlet	1/4 oz.	.40
coronaria St. Brigid, dble., mixed	1/4 oz.	.45

CAMPANULA		
annual Canterbury Bells, mixed	1/8 oz.	.30
barbata, blue	1/8 oz.	.45
carpatia, blue	1/8 oz.	.25
carpatia, white	1/8 oz.	.25
medium calycanthemum Cup and Saucer, dark blue, lilac, rose or white	1/8 oz.	.30
medium calycanthemum, mixed	1/8 oz.	.25
medium, double, mixed	1/8 oz.	.25
medium, single, dark blue, lilac, rose-pink, white or mixed	1/8 oz.	.25
persicifolia, blue or white	1/8 oz.	.30
persicifolia, single, Telham Beauty	1/8 oz.	.35
persicifolia, double, white	1/8 oz.	.40
pyramidalis, blue or white	1/8 oz.	.30
retundifolia	1/8 oz.	.40
speculum, mixed	1/8 oz.	.25
trachelium	1/8 oz.	1.10

DIANTHUS		
allwoodii alpinus	1/4 oz.	.55
chinensis, double, mixed	1/4 oz.	.25
chinensis, single, mixed	1/4 oz.	.25
deltoides, crimson	1/4 oz.	.65
deltoides, rose, Maiden Pink	1/4 oz.	.45
deltoides splendens, red	1/4 oz.	.45
deltoides erecta, red	1/4 oz.	.45
heddensis Westwood Beauty	1/4 oz.	.30
heddwigii, double, mixed	1/4 oz.	.30
heddwigii, single, mixed	1/4 oz.	.25
plumarius, double, mixed	1/4 oz.	.45
plumarius, single, mixed	1/4 oz.	.25
plumarius semperflorens, double, mixed	1/4 oz.	.50
plumarius semperflorens, single, mixed	1/4 oz.	.30

GAILLARDIA		
lg.-fl. Burgundy	1/4 oz.	.40
lg.-fl. Dazzler	1/4 oz.	.45
lg.-fl. Goblin	1/4 oz.	.45
lg.-fl. Portola hybrids	1/4 oz.	.30

GEUM		
atrosanguineum, dble., scarlet	1/8 oz.	.35
Lady Stratheden	1/8 oz.	.40
Mrs. Bradshaw	1/8 oz.	.35

GYPHOPHILA		
pacifica	1/4 oz.	.90
paniculata, double, white	1/4 oz.	.60
paniculata, single, white	1/2 oz.	.25

HIBISCUS		
Gt.-flowering, mixed	1/4 oz.	.30

HOLLYHOCK		
Chater's double, Blush, garnet-red, Golden Drop, lilac, maroon, Newport Pink, rose-pink, red-salmon, salmon-pink, scarlet-red, sunset-buff, white or yellow	1/4 oz.	.55
Chater's double, mixed	1/4 oz.	.45

LATHYRUS		
latifolius, pink, red or white	1/4 oz.	.45
latifolius, mixed	1/4 oz.	.40

MYOSOTIS		
alpestris, blue	1/4 oz.	.30
alpestris Blue Ball	1/4 oz.	.55
alpestris, indigo-blue (Royal Blue)	1/4 oz.	.35
alpestris Messidor, blue, late-fl.	1/4 oz.	.30
alpestris, rose	1/4 oz.	.30
alpestris, white	1/4 oz.	.30
alpestris, dwarf, indigo-blue	1/4 oz.	.45
alpestris Victoria, dwf., blue	1/4 oz.	.60
alpestris Victoria, dwf., indigo-blue	1/4 oz.	.60
alpestris Victoria, dwf., rose	1/4 oz.	.60
palustris semperflorens	1/4 oz.	.50

PLATYCODON		
grandiflora, blue	1/8 oz.	.30
grandiflora, shell-pink	1/8 oz.	.55
grandiflora, double, blue	1/8 oz.	.60
grandiflora, double, white	1/8 oz.	.60
Mariesi, blue or white	1/8 oz.	.60

HERBST BROTHERS
92 Warren St., New York 7, N. Y.

developed, but which have higher quality. Among these are the Haver-meyer seedlings, the Preston hybrids and several other hybrid groups.

Ideas for Tree Experts.

The final talk was given by A. W. Meserve, arborist, of Danbury, Conn., who recommended that tree experts make more business for themselves out of the storm damage resulting from the past Thanksgiving week-end storm by estimating damage for clients who wish to use the data for income tax deduction purposes.

He suggested that the arborist cultivate the natural desires of his clients to develop a place to relax, extend outdoor hobbies, increase their property values and enhance the attractiveness of the community for tourists. He also stressed the value of advertising, giving examples of his own messages to clients. In some cases, these were not direct appeals for action, but were statements to remind his clients that he was still alive and in business. In many cases the advertisement illustrated an outstanding horticultural item and, at the same time, suggested the importance of taking care of existing trees on the customer's property.

He recommended further that, for custom spraying, the arborist secure an order for a 3-year period to save on cost of repeated visits. The second and third year the action would be initiated from his office, from which he merely would request confirmation of the order from the property owner. He stressed the value of doing an excellent service job as an aid in developing a larger business and the need for maintaining a good cost account system in order to assure that the arborist is making a profit. He said he preferred to work on an hourly basis in order to insure doing a good job for the client without danger of losing profit in the operation.

Mr. Meserve mentioned a number of trees which are particularly suited for use in street planting and which would not interfere with overhead wires. He pointed out the need for arranging for street planting several years in advance so that the trees would be available in the size necessary.

VACATIONING in Florida is Arthur Turner, of Turner Bros. Nursery, Long Branch, N. J. He expects to return about February 15. His father, William Turner, celebrated his ninety-first birthday November 24.

NORTHERN-GROWN LINING-OUT STOCK

<i>Betula papyrifera</i>	Per 100	Per 1000
1 to 2 ft.	\$ 6.00	\$50.00
2 to 3 ft.	8.00	70.00
3 to 4 ft.	25.00	....
4 to 6 ft.	40.00	....

<i>Clethra alnifolia</i>		
6 to 18 ins.	6.00	50.00

<i>Ilex verticillata</i>		
1 to 2 ft.	6.00	50.00

<i>Syringa vulgaris</i>		
1 to 2 ft.	6.00	50.00

<i>Viburnum cassinoides</i>		
1 to 2 ft.	6.00	50.00

EVERGREENS

<i>Abies balsamea</i>		
4 to 8 ins.	4.00	25.00
8 to 12 ins.	8.00	60.00

<i>Thuja occidentalis</i>		
6 to 9 ins.	4.00	25.00
6 to 12 ins.	5.00	40.00

<i>Tsuga canadensis</i>		
4 to 8 ins.	4.00	20.00
8 to 12 ins.	6.00	50.00

EVERGREEN TRANSPLANTS

<i>Thuja occidentalis</i>		
6 to 9-in. trans.	8.00	75.00

<i>Tsuga canadensis</i>		
4 to 8-in. trans.	12.00	100.00
8 to 12-in. trans.	18.00
12 to 16-in. trans.	30.00

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AMERICAN ARBORVITAE, 10 ft.
An assortment of heavy stock
for landscaping.

RED LAKE RED CURRANTS, 2-yr. No. 1

SAMUEL FRASER NURSERY
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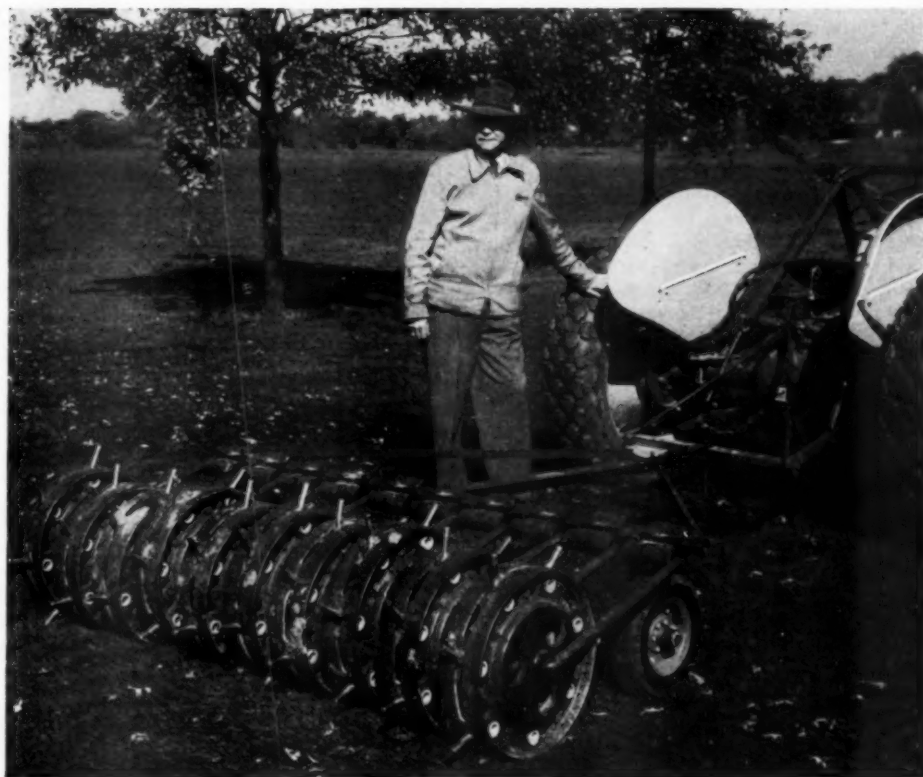
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LINERS

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THE MECHANICAL EARTHWORM LINE

Plant Notes Here and There

By C. W. Wood

When *Chrysanthemum rubellum* first came on the scene in this country about twenty years ago under several names, some of us could see a wide field of usefulness for the plant. I remember well the first time it bloomed here in northern Michigan after I had received seeds from Europe. We were first impressed by its flowering period, commencing in late July and continuing through September, and then by its splendid flowering habits and color; its long-day flowering season indicated an adaptability to pot culture in spring, which later proved to be correct. In view of these and other facts, *C. rubellum*, especially in its better forms, deserves attention.

Its better forms include the now well known variety Clara Curtis, whose large (to three inches across), single, salmon-pink flowers, abundantly produced on 20-inch stems, are one of the joys of summer. The English, taking advantage of the plant's natural variations and crossing it with other types, have produced a number of named forms, ranging from the double, pinkish-lilac Crown Jewel through the semi-double coppery Paul Boissier to the big, single wine-colored Royal Command. As several of these new named varieties are now available in this country, no one need deny himself their pleasure and profit.

Some Thoughts on Adonis.

Perhaps the ancients were somewhat ambiguous, as we understand their writings, when they sat down to record the happenings of their days, and it may be, as moderns think, that they let fancy have too full play at times. These, at least, are the conclusions of most moderns when they read of the goring of Adonis by a wild boar and his subsequent death, with Venus weeping over him, her tears mingling with his lifeblood.

Bulfinch tells us, in his attempt to popularize these ancient fancies, that "She sprinkled nectar on the blood; and as they mingled, bubbles rose as in a pool, on which raindrops fell, and in an hour's time there sprang up a flower of bloody hue like that of the pomegranate. But it is short lived. It is said the wind blows the blossoms open, and afterwards blows the petals away; so it is called anemone, or windflower, from the cause which assists equally in its produc-

tion and its decay." All of this seems to make it clear that the ancients ascribe the origin of the windflower to the blood of Adonis, the favorite of Venus, but in some way, perhaps by being confused in the popular mind with the anemone, the plant that we now know as pheasant's-eye was thought to have originated in the same manner and was honored with the hero's name. With its origin thus explained, it is easy to see why the ancients thought the plant brought "painful recollections" and was so used in their language of flowers. Thus we have adonis representing a group of about twenty species of ranunculus-like plants, not more than a fifth of that number being well represented in gardens.

Of these, the spring adonis, *A. vernalis*, is the best known, with its yellow flowers, one to each foot-tall

stem, appearing usually by mid-April in northern gardens. If its buttery complexion is marred by a slight infusion of green, as is often the case in seedling-grown stock, one has to put up with that fault until a brighter yellow is discovered which may transmit its clear color to its progeny. Should this fail, too, there remains the chance that you will be successful after another try. In transplanting, the plant eventually will become accustomed to its new home, especially if it is given footing in a rather heavy loam in a warm spot. Selected forms can successfully be increased by means of division.

To usher in the adonis season, one starts with *A. amurensis*, a child of the early spring, which bears 9-inch stems before the leaves appear, each stem bearing a single yellow flower. The plant is an early spring bloomer,

STASSEN'S "ORDER-AS-YOU-SELL" BULB PLAN BRINGS BIG PROFITS — INCREASES SALES

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Write for the famous "Stassen Sales Plan" for Summer-flowering Bulbs—the privileges of buying only needed stock—we ship your orders direct to your customers under your OWN label

—no waste, no guess work, no risk, good profits—your own catalog of most popular bulbs, plus free dealer helps for counter sales.

You only stock sufficient bulbs desired for over-the-counter sales and pickup orders. This eliminates leftover stock, purchase and delivery problems. No risk—no bother.

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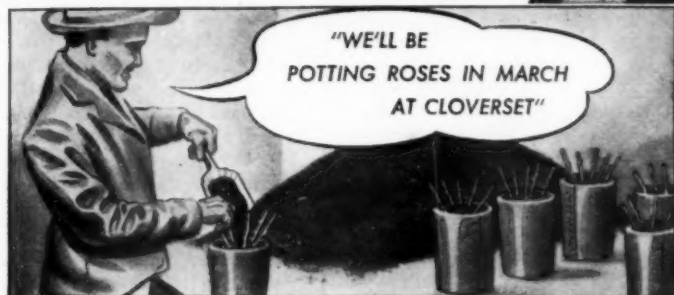
	Per 100
5000 <i>Euonymus Alatus</i> , 3 to 6 ins., bushy.....	\$10.00
3000 <i>Euonymus Alatus</i> , 6 to 12 ins., single.....	15.00
2500 <i>Euonymus Alatus</i> , 1 to 2 ft., single.....	20.00
1000 <i>Euonymus Alatus</i> , 2 to 3 ft., br.....	25.00
1000 <i>Euonymus Alatus</i> , 4 to 6 ft., single.....	25.00
100 <i>Euonymus Alatus</i> , 6 to 8 ft., \$5.00 each, B&B	

BLUE RIDGE NURSERY

R. D. 3

HARRISBURG, PA.

DO YOU HAVE PLENTY OF CLOVERSET* POTS ON HAND?



ORDER AHEAD—HAVE THEM WHEN YOU NEED THEM!

Here in the central midwest, it will soon be time to start potting Roses and other plants for spring sales. A good many of our southern friends have already finished early potting, but there's still time to order the needed Cloverset Pots if you're in the late frost belt. And, of course, you'll need more for summer potting, too.

But, as practical nurserymen ourselves, we strongly advise you not to wait until the last minute to order. Express rates are high; by ordering early you get the advantage of using freight, which costs a lot less. It's to your advantage to order NOW and have all the pots you need for doing a bigger-than-ever nursery business this spring, the CLOVERSET way!



(NOTE: If you haven't yet discovered easy-handling, timesaving Cloverset Pots, ask today for a free copy of our big Potting Guide, shown at left, and send only 50c for a set of 8 sample pots, sent postpaid.)

PRICE LIST EFFECTIVE JAN. 1, 1951

TYPE	Height	Top Diam.	Nearest Clay Pot	Approx. Weight	PRICE		
SPECIAL LIGHT							
	(Packed 200 in carton)				Per 200	Per 200	Per 1000
No. 0	5 1/2 ins.	5 ins.	6 ins.	25 lbs.	\$5.50	\$25.00	
No. 1	6 1/2 ins.	6 ins.	7 ins.	37 lbs.	7.50	35.00	
No. 2	7 1/2 ins.	7 ins.	8 ins.	50 lbs.	8.50	40.00	
STANDARD HEAVY							
	(Packed 100 in carton; 300 or more at 1000 price)				Per 100	Per 100	Per 1000
No. 0	5 1/2 ins.	5 ins.	6 ins.	35 lbs.	\$3.25	\$30.00	
No. 1	6 1/2 ins.	6 ins.	7 ins.	52 lbs.	4.50	42.50	
No. 2	7 1/2 ins.	7 ins.	8 ins.	78 lbs.	5.00	47.50	
No. 3	8 1/2 ins.	8 ins.	9 ins.	88 lbs.	5.50	52.50	
EXTRA HEAVY							
	(Packed 25 in carton)				Per 100	Per 25	Per 50
No. 4	13 ins.	12 ins.		200 lbs.	\$7.00	\$13.25	\$17.75
					Per 100	Per 100	Per 1000
					\$23.75		\$210.00

Practical Nurserymen for Over 27 Years

Cloverset Flower Farm
105th Street and Broadway Kansas City 5, Missouri



Photo taken at our big Rose Show last spring, from which thousands of plants were sold.

USE CLOVERSET POTS FOR:

Potting Greenhouse Plants, Roses, Shrubs, Fruit Trees and Evergreen . . . for Bulbs to sell in spring bloom . . . for Camellias, Gardenias and others with tender blooms . . . for Peonies, Chrysanthemums, Bleeding Heart, Philox, etc. . . for Evergreen liners (can be planted pot and all) . . . for Water Lilies (pot will last a year under water) . . . many other uses.

A SIZE FOR EVERY NEED



*Patent Number 2073695

THIS EXCLUSIVE FEATURE insures healthy, growing plants. The bottom tabs on all Cloverset Pots seal in place after first watering, leaving correct opening for proper drainage.

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105th St. and Broadway
Kansas City 5, Missouri

Please send items checked. I enclose \$

- ☐ SAMPLE SET, 50c postpaid.
☐ FREE POTTING GUIDE.
☐ CLOVERSET POTS in quantities noted below. (We will ship via freight unless otherwise specified.)

SIZE	QUANTITY	TYPE	TOTAL PRICE
No. 0			
No. 1			
No. 2			
No. 3			
No. 4			

NAME _____
FIRM _____
ADDRESS _____
CITY _____

LINING-OUT STOCK

SPRING, 1951

T—Once Transplanted
TT—Twice Transplanted
TTT—Thrice Transplanted

TT—Twice Transplanted
FR—Field Row

		Per 100	Per 1000
15,000	<i>Althaea</i> , 1-yr. Sdgs.	\$ 4.50	\$ 35.00
2000	<i>Buxus Newport Blue</i> , 3-yr., TT, FR.	35.00	300.00
6000	<i>Cornus Kousa</i> , 2-yr., T, FR.	20.00	150.00
500	<i>Cornus Kousa</i> , 3-yr., T, FR.	35.00	300.00
5000	<i>Cydonia Japonica</i> , 1-yr., Sdgs.	3.50	27.50
1500	<i>Cydonia Japonica</i> , 2-yr., T, FR.	8.50	75.00
4500	<i>Leucothoe Catesbaei</i> , 2-yr., T.	20.00	150.00
10,000	<i>Pieris Japonica</i> , 1-yr., T.	8.50	75.00
5000	<i>Pieris Japonica</i> , 3-yr., TT.	30.00	250.00
5000	<i>Pieris Japonica</i> , 5-yr., TTT, FR.	50.00	450.00
75,000	<i>Rosa Multiflora Japonica</i> , 1-yr. Sdgs., 2 to 3 mm.	2.50	15.00
2500	<i>Taxus Cuspida</i> , 4-yr., TT, FR.	45.00	400.00
1500	<i>Taxus Cuspida Nana</i> (Brevifolia), 2-yr., T.	30.00	250.00
2000	<i>Taxus Media Hatfieldi</i> , 2-yr., T.	30.00	250.00
4000	<i>Taxus Media Hatfieldi</i> , 4-yr., TT, FR.	45.00	400.00
2500	<i>Taxus Media Hatfieldi</i> , 5-yr., TT, FR.	70.00	600.00
2000	<i>Taxus Media Hicksi</i> , 2-yr., T.	30.00	250.00
3500	<i>Taxus Media Hicksi</i> , 4-yr., TT, FR.	45.00	400.00
1500	<i>Taxus Media Hicksi</i> , 5-yr., TT, FR.	70.00	600.00
1500	<i>Thuja Occidentalis Pyramidalis</i> , 2-yr. grafts, FR.	70.00	600.00
3500	<i>Thuja Orientalis Aurea Nana</i> (Biota), 2-yr. grafts, FR.	60.00	500.00
4500	<i>Wistaria Sinensis</i> , 1-yr. Sdgs.	3.50	27.50

Samples mailed on request.

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ROSA MULTIFLORA

For immediate sale and delivery in February
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seedlings with plenty of fibrous roots.

9 to 12 ins., \$19.00 per 1000. 12 to 18 ins., \$25.00 per 1000.
18 to 24 ins., \$33.00 per 1000.

Remittance with order entitles you to free packing; F. O. B. Rutherford.

Their heavy root system right up to the crown makes these
seedlings suitable for living fences, hedge and barrier plantings.

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for same. If you are interested in
any special items, send us your
list NOW.

THOMAS B. MEEHAN CO., Inc.
DRESHER, PA.

which should be taken into account,
of course, when one is planning the
type of flowers to be placed nearby.

To carry on the adonis perform-
ance, there is *A. pyrenaica*, "whose
burnished gold calls high summons
to Catalonian meadows," as one
poetic soul has stated. Some search-
ing may be needed for this species,
but it is often listed by European
specialists, and when found and es-
tablished in a sunny spot that is not
too dry, it brightens the garden in
June or July, depending upon the
distance from the equator, with its
bright yellow flowers.

Other perennial species, as the
lilac-blue *A. caerulea* of China and
several yellow-flowered kinds from
different parts of Asia, are mentioned
in the literature. They are not easy
to find, however, as I know from a
search of a score or more years for
the blue one mentioned previously.
That should be incentive for more
intense search, though, rather than
discouragement, for the day will
come when these, and perhaps
others, will grace your garden and
mine.

I am sure you will forgive me for
drawing two annuals into the pic-
ture, for, after all, Adonis gave his
name and, as the ancients tell us, his
blood to a red-flowered plant, and
we must look to the annual plants to
find that color, perhaps to *Flos*
adonis, *A. aestivalis*, for the one that
sprang from the favorite of Venus,
according to one version, and of
Aphrodite, according to another. An
inhabitant of southern European
grain fields, *A. aestivalis* has suffi-
cient beauty in its fugitive crimson
flowers on foot-high stems to entitle
it to space in the late spring garden,
but the kind known as autumn
adonis, *A. autumnalis*, will, because
of its long blooming period, from
June to September, and its deep
crimson flowers on 2-foot stems, no
doubt prove more acceptable to
most gardeners. Intermediate in
height and more or less in time of
flowering is *A. aleppica*, with com-
paratively large, decidedly showy,
blood-red flowers. They are all best
grown from seeds, planted outdoors
in fall.

Two Confused Bellflowers.

An eastern reader collecting cam-
panulas is confused by what he sees,
hears and reads about the two
Italian kinds, *C. elatines* and *C.*
elatinoidea. I have not grown either
for several years and have not seen
them; so I am depending upon mem-
ory and a few notes. These tell me
that *C. elatinoidea*, contrary to what

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Velvety Smooth

★ *In Summer*
Cuts Tall Grass
and Weeds Easily

★ *In Autumn*
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Instantly

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at what a
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will do!

The New 1951 Mow-Master line is by far the best and most complete line of Mow-Masters ever produced. It is a handsome, high quality line, alive with a torrent of power and cutting ability for anything that needs mowing.

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Our Spring List has been mailed. If you have not yet received your copy, write for it. You will find many new and scarce items on it, such as:

Azalea Pontica, **Mollis** and **Kaempferi** to name.

Cornus, in varieties.

Cydonia, in the latest novelties.

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Fagus Sylvatica Purpurea Latifolia (Riversi), up to 3½ ft.

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Magnolia Soulangeana and **Denudata (Yulan)**.

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ENGLISH IVY, large leaf, 1-yr., 2½-in., \$15.00 per 100.
TEUCRIUM CHAMAEDRYIS, 1-yr., 2½-in. pots, \$17.50 per 100; \$150.00 per 1000. Ready to ship at once.
AMPELOPSIS LOWI, 1-yr., 2½-in. pots, \$30.00 per 100.

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is generally said and written about it, is not really a difficult plant to grow in the eastern states if given a well drained soil. Its downy leaves, larger than those of *C. elatines*, do not thrive on dampness, and the plant, therefore, will grow best in a wall if the soil is at all heavy. The plant also thrives on lime, while *C. elatines* seems to grow better in an acid soil.

The flowers of both species have rotate corollas, as in *C. garganica*, and carry the blue color of the campanula genus. Both *C. elatines* and *C. elatinoides* are too tender for permanent success in northern Michigan, and, because of this, I doubt if they will ever become popular among the general gardening fraternity. If you are specializing in campanulas and do not live in the coldest parts of the country, you should try them, for you might find them of special value in your section. Even the best authorities differ in their appraisal of the two plants. The late M. Correvon thought *C. elatines* one of the loveliest of the small bellflowers, while Farrer wrote, "I do not think either *elatines* or *elatinoides* really has any conspicuous merit among campanulas or ever could have, even if both were not tender and wet-hating."

Arnica.

I always think of *arnica* in the terms Farrer used in castigating *edelweiss*; anyway, no *arnica* that I have grown was worth the bother it requires to keep it growing in low-land gardens. A plant grower has to think of other than his own likes and dislikes, however, and so long as people let the legendary matter that has grown up about plants like *edelweiss* (*Leontopodium*) and *arnica* influence their buying habits, we shall have to grow *arnica*.

None of the *arnicas* is really easy to grow, though most may be grown in a rather haphazard manner, which is sure to produce indifferent results, but well grown plants are to be had only at the expense of special care. First of all, they require a rich, moist soil and from my experience, a soil on the acid side. All are hardy and have flowers more or less like a *calendula*. Seeds germinate quite readily, especially if given the benefit of frost action, and seedlings grow fairly rapidly under the conditions named.

The best known species is the European, *Arnica montana*, a 1-foot tall plant with large orange-yellow blooms appearing in May and June. It has a long-established place in the



1-yr., 24 ins. and up. 2 1/2-in. pot.

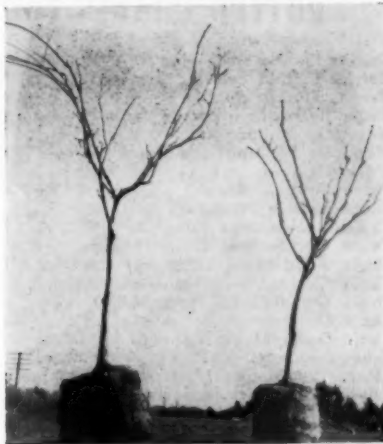
BLUESPIRE ARBORVITAE

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1-yr., field (as in picture).....	\$0.65
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36 ins., heavy, regular.....	1.75
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15 to 18 ins., 22 lbs.....	\$1.00
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(See grade in picture.)Heavy, field-grown,
18 to 24 ins., \$1.20 each.**WISTARIA TREES**

They bloom every year.

	Each
2 to 3 ft., B&B.....	\$2.25
2 to 3 ft., B&B, heavy (as in picture).....	2.75
3 to 4 ft., B&B (as in picture).....	3.25
4 to 5 ft., B&B.....	3.75

OUR ONE-YEAR LINERS BLOOM

SPINY GREEK JUNIPERS

	Each
15 to 18 ins., 22 lbs.....	\$1.25
18 to 24 ins., 30 lbs.....	1.50
24 to 30 ins., 40 lbs.....	2.00

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Kansas City, \$0.64	St. Louis, Mo., \$0.64	Albuquerque, N. Mex., \$0.85
		Milwaukee, \$1.04

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medical world and among herbalists. We have to turn to America, however, to find the largest number of species, which occur in the mountains of the west. Among them the following may be mentioned: Alpina, arcania, chamissonis, jonesi, fulgens (spoken of by some horticultural writers as growing only in the high mountains while, as a matter of fact, its range runs down to the plains, and a plant I had from South Dakota seems more adaptable to dry conditions than most), louisiana (from the Rocky Mountain Lake Louise and not from the state of that name) and tomentosa.

Propagating Shrubby Cinquefoil.

A reader asks for culture and propagation of the shrubby poten-

ORNAMENTAL STOCK

Abelia Grandiflora
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Magnolia Soulangeana	60.00
Magnolia Soulangeana Nigra	60.00
Pinus Cembra	50.00
Pinus Strobus Nana	50.00
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Thuja Occidentalis Rosenthalii	40.00
Thuja Occidentalis Wareana (Sibirica)	40.00
Tsuga Canadensis Heterophylla	40.00
Tsuga Canadensis Mertensiana Compacta	40.00
Tsuga Canadensis Sargentii	45.00
Wistaria Multijuga (Lavender)	50.00

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Cotoneaster Divaricata, 1-yr. sdgls., 6 to 10 ins.	10.00
Cotoneaster Horizontalis, 1-yr. sdgls.	12.00
Fagus Sylvatica Riversi (Rivers Purple Beech), 2-yr. grafts, 10 to 15 ins.	125.00
Juniper, Hill's Pyramidiformis, 1-yr. grafts, 8 to 12 ins.	65.00
Juniper, Keteleeri, 1-yr. grafts, 8 to 12 ins.	65.00
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Lilac, 2-yr. grafts, in variety, SPECIAL	25.00
Magnolia Soulangeana, 2-yr. tr. cuttings, 12 to 18 ins.	75.00
Prunus Tomentosum, 1-yr. tr., 10 to 18 ins.	15.00
Thuja Pyramidalis, 1-yr. grafts, 10 to 15 ins.	50.00
Thuja Pyramidalis, 2-yr. grafts, 18 to 24 ins.	75.00
Viburnum Burkwoodii, heavy 1-yr. tr. cuttings	60.00
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VERKADE'S NURSERIES

NEW LONDON, CONN.

tilla, with special emphasis on *Potentilla fruticosa* and its forms. All *fruticosa* varieties with which I am acquainted come readily from seeds, which, if carefully saved from isolated plants, will come true in the geographical varieties. The hybrids, of which *P. vejitchi*, the result of crossing *P. fruticosa* and *P. dahurica*, it is said, is one example, cannot be expected to come true from seeds. In the case of hybrids, vegetative reproduction must be used, as it will be by most, even in the case of the type and its geographical forms. Fortunately, that is an easy task, for propagation of shrubby *potentilla* is both quick and sure from green cuttings from the time green wood is available in early June until the growths ripen in late summer. Fortunately, too, this plant thrives in almost any soil and situation, though full exposure to sun and a not too rich soil will usually produce the most flowers.

Kniphofia.

A Minnesota reader writes as follows: There seems to be a vast difference between performance of the plant and what growers' sales literature leads me to expect. The catalogs refer, for instance, to winter-hardy torch lilies, but actually none has been able to withstand our Minnesota winters and I have bought most of the so-called hardy varieties during the past five years. Have you any suggestions?

There are no really hardy *kniphofias*, so far as I know, and probably there never will be any to qualify fully for that title. In the first place, they are all African plants, and that continent does not give us many plants that can stand the low temperatures of northern Michigan, Wisconsin and Minnesota. It might be added here, though, that I have grown *K. uvaria* in the open for as long as ten years without any special protection, although it should be added that the plants were in a protected spot where they were assured of a deep snow covering from fall until spring.

I do not know the parentage of the series of new garden hybrids, including *Goldmine*, *Primrose Beauty* and *Springtime*, the so-called winter-hardy ones, but I suspect, from their appearance, that *K. uvaria* entered into their make-up. In any event, they are of about the same degree of hardiness. The only way that we were able to keep them with certainty was to dig them in late autumn and store them in soil in a pit or cellar. However, it is quite safe in this

No Compost Problem Here



There is no compost problem in greenhouse or nursery when a Royer Compost Mixer is on the job. If quality is your problem, the compost prepared with a Royer is finer in texture and more evenly granulated than anything that can be produced by any other method. Properly sized particles absorb and retain moisture . . . release nutritious elements quickly spread evenly without damage to the tenderest shoots.

If cost is a problem, the Royer will help solve that, too. One or two men and a Royer can equal the production of a good sized gang using hand screening methods. In many

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The Royer NCB-4 shown at a Flushing, N.Y. florist is electrically driven with a capacity to 6 cu. yds. per hour. Other models with belt-to-tractor and gasoline engine drive are available, in capacities to 12 cu. yds. Write for Bulletin 46.



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climate to give them a heavy mulch of salt hay, which does not mat down around the plant and cause rotting of foliage and crown.

I should like to add in this connection a note on a new variety of kniphofia, W. S. Reeves, that I saw last year and greatly admired. I can see a wide field of usefulness for this plant as a landscape ornament, where plants with a stately height of five feet or more are needed. Some of the plants seen were slightly more than five feet tall, and it seemed apparent that more liberal treatment could stretch them up to six feet, perhaps higher, under generous feeding. And the large heads (a foot or more long) of long, closed tubes of pretty soft coral-red, in July, complete a highly useful torch lily. I know nothing of the hardiness of K. W. S. Reeves, but I suspect its constitution is similar to that of most other modern hybrids. It is apparently very floriferous, so should make a good cutting item for July.

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(NEW)

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MANCHESTER, CONN.

Wholesale Nurserymen Since 1922

ORNAMENTAL EVERGREENS

Trees & Shrubs

BAGATELLE NURSERY

P. O. Huntington Station, N. Y.

Virginia Short Course

By A. G. Smith, Jr.

The second annual short course for nurserymen sponsored by the horticultural department of Virginia Polytechnic Institute, Blacksburg, was held January 2 to 12 under the supervision of Prof. A. G. Smith, Jr., and Prof. Albert S. Beecher.

Emphasis at this short course was on landscape drafting, landscape design and planting design. Day and night sessions were held, and the time was divided between lectures, discussion periods, field work and laboratory problems.

Under the direction of Professor Beecher, each student had the opportunity to improve his skill in drafting. The first laboratory periods were spent in practicing lettering and in the making of landscape symbols used in the preparation of landscape plans. After these preliminary exercises, a landscape problem was assigned and the student had to locate the house and garage on the lot and then complete the landscape development of the property so that there was a good relationship between the house and the grounds. Next, a planting plan was prepared and each student drew a front elevation of the house. The drawing of the elevation gave the student the opportunity to practice making tree and shrub forms. Near the conclusion of the course, when the students became more efficient in sketching tree and shrub forms, some of the more advanced students prepared perspective drawings of the landscape development.

The first lecture and demonstration on "Nursery Pests and Their Control" was presented by G. W. Underhill and J. O. Rowell, of the entomology department, assisted by C. R. Willey, associate state entomologist. Professor Underhill displayed a large collection of mounted insects and many specimens of infested ornamental plants.

"Fruit for the Home Grounds" was discussed by Dr. W. P. Judkins, R. C. Moore and Fred Drieling, all of the horticultural department.

One evening's program was devoted to a discussion of lawns, led by Dr. Lyman Carrier, who had done much research on grasses. Colored slides of lawn plots at the Virginia Polytechnic Institute arboretum were shown. Another evening's program was led by C. H. Lewis, of Salem, on the subject of "Garden

Roses." Slides of rose gardens were shown, including numerous scenes in the institute's rose plots.

Dr. John R. Havis, of the department of horticulture, lectured on "Chemical Weed Control," while "Handling of Plant Material" was discussed by W. H. Duis, of Duis Garden Service, Pulaski, who spoke from a wide experience in propagating, growing and transplanting ornamental plants.

Two lectures, "Modifying Climate by Plants" and "How Plants Grow," were presented by Professor Smith. Through the use of microscopes and mounted plant tissue, some of the facts of plant growth were illustrated. Practice in handling a level and running contour lines was given by Prof. V. F. Earp, of the agricultural engineering department.

Prof. George Frazer and Prof. Henry H. Wiss, both of the architectural department, assisted Professor Beecher in the instruction of

drafting and sketching. In addition, Professor Frazer conducted the nurserymen on a tour through the architectural laboratory to show them some of the plans that students had prepared. Professor Frazer pointed out the various media, such as ink, pencil, water color, crayon, etc., that can be used for drawing plans. Professor Wiss demonstrated a quick method for a perspective sketch for a garden development.

One day of the short course was set aside for a landscape tour of the Roanoke area. The grounds of the veterans' hospital were visited first, and the head gardener, Mr. Wharton, pointed out the plant material. The class had the opportunity to see a rose garden that was in construction and to hear a discussion of drainage for this garden. Next, the group visited the Little Tree Nursery where there was an opportunity to see some plant propagation and an assortment of plants. A visit to a range of commercial greenhouses

SPRING SURPLUS

10 Laburnum Vossii, 7 to 8 ft.	Each \$4.00
10 Weeping Red Peach, 5 to 6 ft.	3.00
10 Malus Atrosanguinea, 6 to 8 ft.	3.50
10 Malus Eleyi, 6 to 8 ft.	3.50
10 Malus Niedzwetzkyana, 6 to 8 ft.	3.50
40 Hawthorn, Paul's Scarlet, 8 to 10 ft.	6.00
500 Azalea Mollis, Named, 15 to 18 ins.	Per 100 \$275.00
100 Hemerocallis Hyperion	30.00
100 Hemerocallis Theron, dark	40.00
100 Hemerocallis Lyonian, selected	40.00
300 Ilex Helleri, 3-yr., X	60.00
200 Epimedium	30.00
100 Chamaecyparis Cyano Viridis, 12 to 15 ins.	125.00
Cash, please.	

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245 Brimfield Rd. Wethersfield, Conn.



TAXUS CUSPIDATA UPRIGHT SEEDLINGS

2-year, 2 to 5 inches.
\$12.50 per 100; \$100.00 per 1000;
\$450.00 per 5000.

FAIRVIEW EVERGREEN NURSERIES
Fairview, Erie Co., Pa.

TAXUS

Quality stock with J. B. certificate; in carload or truckload lots.

TAXUS capitata, 2 1/2 to 8 ft.

TAXUS cuspidata,
1 1/2 to 4 ft.

TAXUS nana and
intermedia, 1 to 3 ft.

TAXUS hicksi and hatfieldi,
2 to 4 ft.

Also

TAXUS capitata liners,
3 to 4 yrs., 1 to 2 ft.

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Babylon, L. I., N. Y.

CHINESE CHESTNUT TREES

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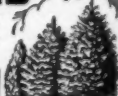
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Swarthmore, Pa.

20 MILLION TREES A YEAR!

Complete line of Nursery Stock—
Evergreen Seedlings and Transplants, Hardwood Seedlings, Fruit, Shade and Nut Trees, Roses, Berries, Shrubs and Rhododendrons.

MUSSEY FORESTS, Inc.
Indiana, Pa.



GRAFTED STOCK For Spring, 1951, Delivery

	Per 10	Per 100
<i>Acer palmatum atropurpureum</i>	\$7.00	\$65.00
<i>Acer palmatum dissectum atropurpureum</i>	7.00	65.00
<i>Cornus florida alba plena</i>	5.00	45.00
<i>Cornus florida rubra</i>	5.00	45.00
<i>Cornus florida rubra Prosser</i>	7.00	65.00
<i>Fagus sylvatica riversi</i>	7.00	65.00
<i>Ilex opaca femina</i>	5.00	45.00
<i>Juniperus chinensis columnaris glauca</i>	5.00	45.00
<i>Juniperus chinensis columnaris viridis</i>	5.00	45.00
<i>Juniperus chinensis keteleeri</i>	5.00	45.00
<i>Juniperus chinensis neoboriensis</i>	5.00	45.00
<i>Juniperus chinensis sargentii</i>	5.00	45.00
<i>Juniperus chinensis sargentii glauca</i>	5.00	45.00
<i>Juniperus chinensis mayeri</i>	5.00	45.00
<i>Juniperus virginiana burki</i>	5.00	45.00
<i>Juniperus virginiana canescens</i>	5.00	45.00
<i>Juniperus virginiana elegantissima</i>	5.00	45.00
<i>Juniperus virginiana glauca</i>	5.00	45.00
<i>Juniperus virginiana globosa</i>	5.00	45.00
<i>Juniperus virginiana kosteriana</i>	5.00	45.00
<i>Juniperus virginiana schottii</i>	5.00	45.00
<i>Juniperus virginiana pyramidaliformis hillii</i>	5.00	45.00
<i>Juniperus sabina Von Ehrh.</i>	5.00	45.00
<i>Magnolia lenei</i>	7.00	65.00
<i>Magnolia soulangeana</i>	6.50	60.00
<i>Magnolia soulangeana nigra</i>	6.50	60.00
<i>Magnolia stellata</i>	6.50	60.00

	Per 10	Per 100
<i>Magnolia stellata rosea</i>	\$6.50	\$60.00
<i>Magnolia stellata rubra</i>	7.00	65.00
<i>Magnolia stellata, Water Lily</i>	6.50	60.00
<i>Magnolia rustica rubra</i>	7.00	65.00
<i>Thuja occidentalis douglasii (spiralis)</i>	4.50	40.00
<i>Thuja occidentalis elegantissima</i>	4.50	40.00
<i>Thuja occidentalis lutea, Mary Corey</i>	4.50	40.00
<i>Thuja occidentalis lutea, George Peabody</i>	4.50	40.00
<i>Thuja occidentalis nigra</i>	4.50	40.00
<i>Thuja occidentalis pyramidalis</i>	4.50	40.00
<i>Thuja occidentalis rosenthalii</i>	4.50	40.00
<i>Thuja occidentalis wareana (sibirica)</i>	4.50	40.00
<i>Thuja orientalis aurea nana</i>	4.00	35.00
<i>Thuja orientalis conspicua</i>	4.00	35.00
<i>Thuja orientalis elegantissima</i>	4.00	35.00
<i>Tsuga canadensis pendula</i>	5.50	50.00
<i>Tsuga canadensis pendula, 1-yr. grafts</i>	7.00	65.00

All the above shipped from 2 1/4-inch rose pots.

1-YEAR MAGNOLIA GRAFTS For either immediate or Spring, 1951, shipment.

	Per 10	Per 100
<i>Magnolia soulangeana</i>	\$8.00	\$75.00
<i>Magnolia soulangeana nigra</i>	8.00	75.00
<i>Magnolia stellata</i>	8.00	75.00

Prices are F.O.B. Mountain View, N. J., packing additional at cost. Usual terms to those of established credit. No goods sent C.O.D. unless 25 per cent of amount is sent with order. All this material is listed subject to prior sale and crop conditions.

HESS' NURSERIES

MOUNTAIN VIEW, N. J.

was included in the tour, as some of the nurserymen were interested in learning about greenhouse construction.

Homes at Blacksburg were visited on another afternoon. The class looked over the existing plantings and made recommendations for improving them. It was agreed that many landscape plantings which originally were sound have been spoiled by improper maintenance.

Other tours included visits to the new 60-acre Virginia Polytechnic Institute's arboretum, the garden theater, picnic nook and nature trail.

CENTRAL MICHIGAN GROUP ELECTS.

New officers of the Central Michigan Landscape and Nurserymen's Association were elected January 10 at a meeting at the Horticulture building, Michigan State College, East Lansing. Harold Hicks, of Cottage Gardens, is the president; Ted Smith, of Smith Tree Service, Inc., vice-president, and Mrs. Jane Smith, of Smith Tree Service, Inc., secretary. Lyle Blakely and Maurice Raymond were named as members of the board of governors. All are from Lansing.

NO-DRI PROTECTIVE WAX EMULSION

Spray, paint or dip transplanted trees and shrubs to reduce loss of moisture and winter wind burn.

55-gal. drum.....\$63.25 5-gal. drum.....\$7.00

30-gal. drum.....\$6.00 1-gal. can 3.00

RABBIT REPELLENT

Protect young nursery stock. Nonpoisonous. Applied by spraying or painting.

55-gal. drum.....\$74.25 5-gal. drum.....\$10.00

30-gal. drum.....\$4.00 1-gal. can 3.00

BORER REPELLENT

Dogwood and many other ornamental trees should be protected from borer damage. Nonpoisonous. Simply brush it on as directed.

5-gal. drum.....\$11.50

30-gal. drum.....\$63.00 1-gal. can 3.00

C. P. O. INSECTICIDE SOAP SPREADER

Used extensively for twenty years to control scale insects, red spiders, lace bugs, aphids on ornamental nursery stock. Safe for summer use.

55-gal. drum.....\$77.00 5-gal. drum.....\$9.25

30-gal. drum.....\$45.00 1-gal. can 3.25

All prices F.O.B. Philadelphia, Pa.

CRYSTAL SOAP & CHEM. CO., Inc.

6300 State Road, Philadelphia 35, Pa., Dept. AN.

POTTED LINERS FIELD LINERS

GRAFTS

(Beetle Certified)

HEASLEY'S NURSERIES

Freeport Rd. BUTLER, PA.

BURR

Leading wholesale source for
Nursery Stock

Send us your Want List.

C. R. BURR & CO., INC.
Manchester, Conn.

HARDY NATIVE EVERGREENS

Collected Stock

Canadian Hemlock, American
Arborvitae, Balsam Fir

Per 100 Per 1000

2 to 4 ins., sdgs.....	\$0.80	\$ 5.00
3 to 6 ins., sdgs.....	1.50	10.00
6 to 9 ins., sdgs.....	2.50	15.00
9 to 12 ins.....	6.00	40.00
12 to 18 ins.....	8.00	65.00

All first-quality stock, well rooted and packed in sphagnum moss.

Send for trade list.

Cash, please.

R. M. COLE

Box 37 CHARLOTTE, VT.

SPECIAL

PHILADELPHUS CORONARIUS

2 to 3 ft. and 3 to 4 ft.

Well rooted with 5 to 6 Canes

Ivan R. Congdon Nursery

North Collins, N. Y.

SHEPARD NURSERIES

Growers and Distributors of

ORNAMENTAL NURSERY STOCK

Truckloads only, no boxing.

60 acres growing. Skaneateles, N. Y.

DEPENDABLE STOCK at REASONABLE PRICES

Surplus Items for Spring, 1951, Delivery. Don't Delay! ORDER NOW! Telephone 97-R.

1-year and June-budded PEACH

	Each
1-in. and up.....	\$0.50
11/16-in. ....	.40
9/16-in. ....	.30
7/16-in. ....	.25
5/16-in. ....	.15
18 to 24 ins. ....	.12 1/2
12 to 18 ins. ....	.08
6 to 12 ins. ....	.05

Varieties in sizes 7/16-in. and up:
Amber Gem, Belle of Ga. Champion,
Red Haven and Hale Haven.

Varieties in sizes 5/16-in. and under:
same as above, and also following: Dixi-
gem, Dixired, Elberta, Late Elberta,
Sullivan's Early Elberta, Golden Jubilee,
Hiley, Jerseyland, J. H. Hale, Indian
Red, Mayflower, Red Bird, Shipper's
Red and Southland.

1-year PLUM

	Each
11/16-in.	\$0.35
9/16-in. ....	.30
7/16-in. ....	.25
3 to 4 ft. ....	.20
2 to 3 ft. ....	.15

Varieties: Abundance, Bruce, Red
June and Stanley Prune.

1-year APRICOT and NECTARINE

	Each
11/16-in.	\$0.45
9/16-in. ....	.40
7/16-in. ....	.35
3 to 4 ft. ....	.30
2 to 3 ft. ....	.25

Varieties: Early Golden, Moorpark
and Superb Apricot, Hunter Nectarine.

1 and 2-year CHERRY

	Each
1-in. and up.....	\$0.80
11/16-in. ....	.65
9/16-in. ....	.60
7/16-in. ....	.50
5/16-in. ....	.40

Varieties: Black Tartarian, Early Rich-
mond, Gov. Wood, Montmorency.

2-year APPLE

	Each
1-in. and up, br.	\$0.40
11/16-in., br. ....	.30
9/16-in., br. ....	.25
7/16-in., br. ....	.20
4 to 5 ft., whips. ....	.25
3 to 4 ft., whips. ....	.20

Varieties: Anoka, Cortland, Yellow
Delicious, Early Harvest, Grimes Gold-
en, Hackworth, All-red Jonathan, Lodi,
Maiden Blush, Red Northern Spy, Red
Rome Beauty, Red Bird, All-red Stay-
man, Turley Winesap, Yates, York Im-
perial and Transcendent Crab.

Combination 5-N-1 APPLE,

11/16-in., well br., 80c each.

Combination 5-N-1 APPLE,

9/16-in., well br., 70c each.

Grafted (Paper-shell) PECAN TREES

	Each
6 to 8 ft.	\$1.75
5 to 6 ft.	1.50
4 to 5 ft.	1.25
3 to 4 ft. ....	.90
2 to 3 ft. ....	.80
18 to 24 ins. ....	.70

Varieties: Stuart, Success, Moneymaker.

Hardy Seedling PECAN TREES

	Each
4 to 5 ft.	\$0.55
3 to 4 ft. ....	.45
2 to 3 ft. ....	.35

Red-flowering DOGWOOD

(Cornus florida rubra) Each	
3 to 4 ft., well br., br.	\$2.50
30 to 36 ins., well br., br.	2.00
24 to 30 ins., well br., br.	1.50

White Flowering DOGWOOD

(Cornus florida alba) Each	
4 to 5 ft., well br.	\$0.80
3 to 4 ft., well br. ....	.60
2 to 3 ft., well br. ....	.40

Double-flowering PEACH

Red and White Each	
4 to 5 ft., well br.	\$0.45
3 to 4 ft., well br. ....	.35
2 to 3 ft., well br. ....	.25
18 to 24 ins., well br. ....	.20

CUMBERLAND VALLEY NURSERIES, Inc.

McMinnville, Tennessee

NORTHERN-GROWN EVERGREENS

SPRUCE - JUNIPER

TAXUS - ARBORVITAE

Write for list.

BROWN DEER NURSERIES

P. O. Box 1747

Milwaukee 1, Wis.

ROSA MULTIFLORA JAPONICA

Upright thorny type.
Row run, 1 1/2 to 4 mm.
\$18.00 per 1000.

BROOKVILLE NURSERIES
Glen Head, N. Y.

Trees, Evergreens, Shrubs Fruit Trees

Write for Our Wholesale Trade List

W. - T. Smith Corporation
Telephone 2689 GENEVA, N. Y.

OBITUARY

Sidney P. Wells.

Sidney P. Wells, owner and direc-
tor of S. P. Wells & Son, Ltd., Castle
Nurseries, Moordown, Bournemouth,
England, died January 2.

Mr. Wells visited the United
States in the summer of 1950 to study
the methods of American nursery-
men and to visit a son, James S.
Wells, manager of Koster Nursery,
Bridgeton, N. J. A feature article on
his comparison between British and
American nurseries appeared in the
July 1, 1950, issue of the American
Nurseryman.

He is survived by another son,
A. E. Wells, who is associated with
the nursery in England.

Dominic Baratta.

Dominic Baratta, 82, founder of
Baratta's Nursery, La Salle, Ill., died
January 12 at St. Mary's hospital,
La Salle, where he had been a patient
for three days.

Born at Cacomia, Italy, March 2,
1869, he came to the United States
as a young man and settled at West-
ville, Ill., where he was engaged in
mining until 1912, when he moved
to La Salle. In 1927 he started Bar-
atta's Nursery, which he continued to
operate with his sons until his death.

His wife, the former Grace Spal-
lina, died in 1949. Survivors include
three sons, Joseph, who now is in
charge of the nursery, and Philip and
Anthony, all of La Salle; three
daughters, Mrs. Josephine Wadas
and Mrs. Nellie Jeronski, both of La
Salle, and Mrs. Rose Montigna, of
Chicago; eighteen grandchildren,
and five great-grandchildren.

Chapman L. Harbour.

Chapman Lee Harbour, age 76,
owner of Harbour's Nursery, Ker-
nersville, N. C., died at his home
January 17. He had been ill for ten
days. Mr. Harbour had lived at Ker-
nersville for sixteen years and was a
resident of Greensboro before that.

Survivors include his widow, Mrs.
Frances Terry Harbour; one son,
Kenneth L., of Long Beach, Calif.;
one brother, W. B. Harbour, and one
sister, Mrs. W. C. Turner.

Mrs. Katie Rubel.

Funeral services for Mrs. Katie
Miller Rubel, 90, who died January
23, at the home of her son, Robert
O. Rubel, Jr., owner of Longview, a
camellia-growing business at Mobile,
Ala., were held that same day prior
to shipping the body to Louisville,

Nurserymen

IN PLANNING FOR '51
REMEMBER THE **3** FACTS
THAT COUNT MOST!



**VIGORO IS NOW
PREFERRED BY MORE
PEOPLE THAN ALL
OTHER BRANDS
COMBINED!**



**VIGORO HAS BROUGHT
NURSERYMEN MORE PROFITS
AND GREATER VOLUME
THAN ANY OTHER PLANT
FOOD!**



**VIGORO'S DRAMATIC
NEW '51 "SAND-TEST"
AD CAMPAIGN MAKES IT
MORE PROFITABLE THAN
EVER FOR YOU TO**

FEATURE VIGORO* NOW

LET THIS NAME HELP
YOU SELL THESE 2
OTHER GREAT
GARDENING AIDS

END-o-PEST

All-purpose dust that
provides the 3-way
protection every
garden needs.

END-o-WEED

Destroys over 100
different kinds of
weeds—roots, stems,
leaves and all.

*There is only one Vigoro... the
trade-mark for Swift & Company's
complete, balanced plant food.



Ky., for burial. Mrs. Rubel had been a resident of Mobile for twenty-six years. Her husband, Robert O. Rubel, Sr., founder of Longview, died several years ago.

In addition to her son, survivors include a daughter, Mrs. Neal Rubel Morris; a grandson, James Culven Morris, Jr.; a great-grandson, James Culven Morris III, all of Louisville, and other relatives.

Dr. Jesse M. Greenman.

Dr. Jesse M. Greenman, 82, curator emeritus of the Missouri Botanical Garden herbarium, at St. Louis, died January 20 at Jewish hospital, St. Louis.

Dr. Greenman had been curator at the garden for about thirty-five years before he retired three years ago. He also was a former professor of botany at Washington University, St. Louis, and was a former professor of graduate work at the Shaw School of Botany. He held the distinction of being a correspondent of the Academy of Natural Sciences of Philadelphia.

He is survived by two sons.

OPEN house was held January 13 and 14 at the new buildings of Carpenter Nursery & Garden Center, Roswell, N. M.

THE COTTAGE GARDENS

N. I. W. Kriek

Harold E. Hicks

LANSING 15, MICHIGAN

EUONYMUS VEGETUS

1-year, pot

18c each per 100

15c each per 1000

Ask for complete list.

Finished and Lining-out
Stock.

PRIVET and BERBERIS

Splendid Stock

Write for Special Quotations

LESTER C. LOVETT

MILFORD

DELAWARE

The CHRYSANTHEMUM

CATALOG you cannot afford
to be without.

WONDERLAND NURSERIES
Ellerson, Va.

NEW!

VIBURNUM CHENAULTI

Another evergreen hybrid of Viburnum carlesii.

More compact in growth than Viburnum burkwoodi

Flowers identical to Viburnum carlesii.

Liners 6 to 9 inches in plant bands.

Per 10	Per 100	Per 1000
\$5.00	\$35.00	\$325.00

FIELD-GROWN PLANTS

18 to 24 ins., B.B., \$17.50 for 10;
\$150.00 for 100.

2 to 3 ft., B.B., \$25.00 for 10; \$225.00
for 100.

Packing at cost

THE SIEBENTHALER COMPANY

CATALPA DRIVE DAYTON 5, OHIO

PHOTINIA VILLOSA

12 to 18 ins. trans. \$12.50 per 100.

NEWPORT NURSERY CO.

NEWPORT, MICHIGAN

Old English BOXWOOD

(Wholesale Only)

SELLING OUT. Specimens 20 x 16 ins. and up; also very large specimens. No smaller stock left. Special discounts on carload or truckload orders. Prices on request. Inspection invited.

BOXWOOD GARDENS

Mrs. R. P. Royer

High Point, N. C.

Again

We offer for Spring 1951
50,000 Juniperus Grafts

(Grafted on Red Cedar)

ORDER NOW

before certain kinds are sold out.

It's quality that counts.

Juniperus chinensis

	Per 100	Per 1000
columnaris glauca	\$47.50	\$450.00
ketelerii	47.50	450.00
compacta	47.50	450.00
mascula	47.50	450.00
pyramidalis	47.50	450.00

Juniperus virginiana

burki	47.50	450.00
canaerti	47.50	450.00
canaerti compacta	47.50	450.00
elegantissima Lee	47.50	450.00
glauca	47.50	450.00
schottii	47.50	450.00
pyramidalis hillii	47.50	450.00

Picea pungens

moerheimii	100.00	
------------	--------	--

Acer polymorphum

ashi-beni (the best red)	80.00	
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Out of Pots and Beds

2000 Juniper, Pfitzer,	Per 100	Per 1000
8 to 10 ins., 1-yr.,		
2 1/2-in. pots	\$27.50	\$250.00

1000 Juniper, Pfitzer,		
12 to 15 ins., strong,		
out of beds	55.00	500.00

3000 Euonymus patens sieboldii		
10 to 15 ins., bushy,		
out of beds	35.00	300.00

PAUL OFFENBERG
NURSERIES
COLUMBUS 13, OHIO

HARDY MUMS.

Clean rooted cuttings.

HARDY PHLOX.

Liners and field-grown.

EUONYMUS.

2 1/4-in. pots and 1-year field-grown.

An excellent assortment of varieties in all of the above items. Ask for our descriptive wholesale list.

CUNNINGHAM GARDENS, Inc.
WALDRON, IND.

COVER ILLUSTRATION.

Cotoneaster Adpressa.

One of the best of the low-growing cotoneasters is the creeping cotoneaster, Cotoneaster adpressa, a prostrate, irregularly branched shrub of one and one-half to two feet in height. Considerable discussion often arises among nurserymen and landscape gardeners about the comparative merits of Cotoneaster adpressa and Cotoneaster horizontalis, the rock cotoneaster. In the writer's opinion, the two are sufficiently distinct to warrant growing and using both types where they are hardy. If I had to choose only one, it would be Cotoneaster adpressa. It is not so susceptible to winter injury as the rock cotoneaster, has better foliage and is as attractive as the rock cotoneaster in branching habit and fruit.

Cotoneaster adpressa is native to western China and was introduced in 1896. The generic name of this plant, cotoneaster, comes from the Latin word "cotonea," meaning "quince," and "aster," meaning "kind of," and refers to the character of the foliage of some species. The specific name, adpressa, means "pressed against" and refers to the growth habit of the plant.

The leaves of Cotoneaster adpressa are small, usually less than one-half inch long and broadly oval in outline or maybe broadest above the middle. They are glossy, dark green in color and exhibit a wavy margin. The fall foliage color is reddish-green.

The broader leaf with its wavy margin is one means of distinguishing this plant from Cotoneaster horizontalis. Another point of identification is that the rock cotoneaster is very regularly branched. This is not true of Cotoneaster adpressa.

The flowers of Cotoneaster adpressa are small, pinkish in color and are produced in late May or early June. The many, small, bright red fruits ripening in August constitute one of the many fine characteristics of the plant.

A variety of Cotoneaster adpressa, praecox, is grown to a limited extent. It differs from the species primarily by its more vigorous habit of growth and somewhat larger fruit.

Like most of the cotoneasters, the creeping cotoneaster does best in a fertile, well drained soil and in a sunny or partially shaded situation. It has proved to be considerably hardier at Columbus, O., than Cotoneaster horizontalis. Plants are sometimes damaged by fire blight and scale, but red spider has been more serious in plantings at Columbus.

PFITZER JUNIPER LINERS

In wood plant bands for field plantings.

Big heavy plants.

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However, this species seems less susceptible to spider injury than the rock cotoneaster.

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L. C. C.

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Tree Maintenance

By Noel Wysong

STORM DAMAGE TO TREES INCOME TAX DEDUCTION.

In filing income tax returns one of the deductible losses sometimes overlooked, and one which has caused considerable controversy among arborists, is the loss suffered as a result of storm damage to trees and shrubs. In the section under "Casualty Losses and Thefts" of the pamphlet, "How to Prepare Your U. S. Income Tax Returns," issued by the bureau of internal revenue, it is stated that "... you can deduct your net loss from the destruction of your property in a fire, storm, automobile accident, shipwreck or other losses caused by natural forces. To compute the amount of the loss, determine the fair market value of the property just before the loss and subtract both (a) the salvage value, and (b) any insurance or other reimbursement."

A careful reading of this section leaves no room for doubt that the amount of one's loss, or your tax deduction, is the amount by which the market value of one's property, as a whole, was reduced because of the storm, less, of course, any storm damage insurance received. A visit to the local office of the bureau of internal revenue confirmed this interpretation. If you base your loss on the value of your trees in accordance with any of the standard methods of shade tree evaluation, or on the cost of repairing them, or on the cost of replacement, it is probable that your claim will not be allowed. It is true that income tax deductions which were based on the cost of cleanup, repair, replacement or the owner's estimated value of trees destroyed occasionally have been allowed. But generally in such cases, the loss claimed has been modest, and proof has been lacking as to the amount of decrease in the market value of the property. It is entirely possible that loss of a number of trees and shrubs might serve to decrease the market value of your property by an amount in excess of that derived through any of the above methods of calculation; it is also possible that loss of a few trees, in the case of overplanted grounds, for example, would have no effect upon the market value of your property.

There is one possible exception to the general rule that loss cannot be based upon the value of trees. For

instance, if you planted trees during the spring, 1950, and they were destroyed by storms before January, 1951, you probably would be allowed a tax deduction equal to the original cost of the trees in place, provided you had the invoices to prove you had expended this sum in the improvement of your property.

The intent of the law is clear, but usually it is difficult to arrive at a figure which honestly can be claimed as representing the decrease in market value of the property because of storm damage. The best procedure for the owner to follow, it seems, is to obtain the services of a real-estate appraiser and an arborist. Working

together, they probably could arrive at a sum fairly representative of the difference in value of the property immediately before and immediately after the storm damage occurred. And, of course, a statement explaining how the amount of loss was determined should be attached to the income tax return form.

N. W.

WHAT'S NEW?

Weather conditions, particularly lack of precipitation, may be more responsible for various tree ailments than is generally recognized. Prof. David H. Marsden, of the shade tree laboratories, University of Massachusetts, Amherst, writing in the Plant Disease Reporter, offers evidence to support this theory. During the period 1939 to 1949, says Professor Marsden, there was a decided

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100 Elm, White, 5 to 6 ft.....	50.00
150 6 to 8 ft.....	75.00
100 Poplar, Bolleanna,	
1 1/2 to 1 3/4-in.....	150.00
300 Poplar, Lombardy, 6 to 8 ft.	35.00
500 8 to 10 ft.....	50.00
300 Willow, Niohe W., 4 to 5 ft.	40.00
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increase in such maladies as needle blight of conifers, early leaf fall of deciduous trees, dieback or small, thin foliage on established trees, transplanting failures, sun scorch of maples, outright dying of evergreens and accelerated dying of oaks in areas previously ravaged by the gypsy moth. Statistics compiled from data recorded at the university's observatory show that the total precipitation for this period was 42.19 inches below that of the preceding eleven years.

Most of this decrease in precipitation occurred in the late summer and fall months; during the months of August through November in the 1939 to 1949 period there were 35.06 inches less rainfall than in the corresponding months of the 1928 to 1938 period. Thus, 83.1 per cent of the total decrease occurred in 33.3 per cent of the total period, and that at the time of year when rainfall is most needed to store water in the soil to minimize the danger of severe winter injury.

In diagnosing tree troubles, the drought factor often is overlooked by both the tree owner and the arborist, since usually the effects of dry weather do not become visible in the tree until some months after the drought has occurred. N. W.



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NEW YORK ARBORISTS.

[Continued from page 20.]

trees could be recommended for planting as street trees, a lively discussion took place as to the advisability of planting elms and the possibility of using red oak, linden, sycamore and ash instead. Sugar maple proved to be a favorite with a number of arborists. Ginkgo and honey locust were mentioned as other possibilities.

Attention was called to a blight on white ash, which apparently is prevalent in certain areas near Syracuse. The cause at the present time is unknown.

The question on the use of cement in tree cavity work brought out the fact that most of the arborists favored cleaning out diseased wood as far as possible, applying a wood preservative treatment to the cavity and leaving the cavity open. Cavity filling, however, can be practiced to good advantage in certain cases.

Dutch Elm Disease.

A discussion of Dutch elm disease control measures for New York was presented by William E. Ozard, state horticultural inspector, and by Dr. Welch and Dr. George Matthyse, both of Cornell University.

New York has had a successful program for the control of Dutch elm disease since shortly after the disease was introduced over fifteen years ago. Scouts inspect areas, list trees for destruction or treatment and advise civic officials, public agencies and private owners on control measures. The object is to guide the public in the application of cleanup measures to prevent costly outbreaks of the disease. Emphasis is placed on locating and eradicating the major elm bark beetle-breeding sources in dead and dying elms and in cut wood. Only beetle-breeding wood likely to produce a brood of adult beetles in the spring is considered dangerous. Removal of trees infected with Dutch elm disease is no more important than removal of trees dying from other causes.

In many areas ninety per cent or more of dead elm wood is cleaned out annually, and in these places the disease does not become important and losses of elm trees are minor. Some cities have suffered excessive loss of elm trees because of neglect or disinterest in the Dutch elm disease problem.

Spraying with DDT was discussed as an adjunct to the sanitation program. One per cent DDT may be sprayed on wood in which elm bark beetle breeds, but this chemical must be used cautiously or killing of ad-

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2-yr., 9 to 12 ins., bearing age	\$0.40	\$3.50
2-yr., 12 to 18 ins., bearing age55	5.00
4-yr., 18 to 24 ins., bearing age75	7.00
2-yr., 9 to 12 ins., bearing age	\$32.50	\$300.00
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Whole Roots	8.00	75.00
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RED RHUBARB		Per 100	Per 1000
Canada Red, No. 1 divisions	40.00	350.00
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adjacent living plants or grass may result. A 1 to 1 dilution of commercial twenty-five per cent emulsifiable DDT may be used in a single heavy prefoliage mist-blown treatment to healthy trees to help prevent infection. Two per cent DDT emulsion may be used similarly in hydraulic sprayers. DDT treatment of healthy trees was pointed out to be so costly for large-scale work that sanitation measures are to be preferred. However, DDT treatment is desirable on particularly valuable private trees or on trees in areas where sanitation is difficult.

Turf Management.

The program Tuesday opened with a discussion of turf problems by Dr. Cornman. He laid particular stress on the building up of a good turf on well prepared soil with good seed mixtures and a proper fertilization program.

The place of new equipment in turf management was discussed, and particular attention was called to the recent developments in turf aeration by the use of aerating machines, which remove cores of soil from the ground and permit opening up turf in areas where compaction is a problem.

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were also discussed as well as present experiment work on the control of crab grass. The value of phenyl mercury acetate formulations, such as Linck W. A. and Scutl, was pointed out. Potassium cyanate also was reported as effective, too. It is somewhat more effective when used after mid-August.

Pest Control.

Dr. John Matthyse, department of entomology, has prepared a program for insect pest control on shade tree and nursery plantings in New York for 1951. His discussion centered about a 15-page mimeographed outline of the program, and lantern slides were shown illustrating the various insects affecting shade trees and ornamental plants.

Later, Dr. Matthyse discussed the compatibility and toxicity of various fungicides and insecticides. He indicated that DDT could be used in combination with Bordeaux, arsenates, rotenone, nicotine and certain oils, but DDT is unsatisfactory when used with Parathion, Paradine and TEPP. Dithiocarbamates are useful with these materials and with many of the newer materials excepting those containing copper. Puritized sprays which contain organic mercuries are also satisfactory to use with arsenicals, Bordeaux, etc., but should be used with caution along with TEPP and oils. Dr. Matthyse reported that the dinitros were not so satisfactory when used in combination with DDT.

Discussing toxicity, he presented results of experiments using rabbits, and, where information was definitely available that applied to man, he also gave data. He listed rotenone, pyrethrum and oils as slightly toxic. DDT has about the equivalent toxicity of lead, while TEPP and Parathion are definitely toxic. A newer material, EPN, is about half as toxic as nicotine. Aramite, K-6451 and Dimite are somewhat toxic.

Machinery for Arborists.

The final feature of the program was a round-table discussion on machinery which centered on the pros and cons of mist blowers and various kinds of sprayers. The panel was led by Dr. J. L. Brann, of the department of entomology. A panel composed of James Pond, forester at Ithaca; Wilbur Wright, superintendent of parks, at Rochester; Dr. George Matthyse and Richard Pendleton, of Ithaca, and Robert A. Bartlett, of the Bartlett Tree Expert Co., Stamford, Conn., presented views on the subject of mist blowers versus high-volume spraying apparatus. All were generally agreed

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Give your customers a chance to have apple trees in their front yards with five different kinds of apples bearing on them. This is what they get when the 5-N-1 tree starts bearing. Those luscious varieties that we bud into the limbs of this tree include Double Red Delicious, Red Jonathan, Yellow Delicious, Anoka and Yellow Transparent. Starts producing in early June and keeps bearing throughout the summer.

	Per 10	Per 100
1-inch	\$12.50	\$100.00
1 1/16-inch	10.00	85.00
9/16-inch	8.00	75.00
7/16-inch	7.00	65.00

(Buds grown out from 4 to 18 inches.)

2 per cent discount—Cash with order, free packing.

F. O. B. BOYD NURSERY CO. McMinnville, Tenn.

BRINKMAN'S

The largest producers of
MALLING STOCKS AND FRUIT TREES
in Europe.

Types I, II, IX, XIII, XVI one-year transplanted ex own stool beds.

	Per 100	Per 1000
5 to 7 mm.....	\$5.00	\$45.00
7 to 10 mm.....	7.00	65.00
8 to 12 mm.....	8.00	75.00

F.O.B. Southampton—packing and other charges forward.

**FINE QUALITY—WELL ROOTED
GUARANTEED TRUE TO TYPE**
Government certified. Certificate No. 29/1950.

Trade list of all FRUITS on request.
Well over 800 acres under cultivation.

BRINKMAN BROS., LTD.

Wholesale Fruit Tree Growers
Bosham, Sussex, England

30,000 CUT-LEAF WEeping BIRCH

(Betula Laciniata on White Birch)
Well feathered, very fibrous roots

	Each	Each	Each
	per 10	per 100	per 1000
2 to 3 ft.....	\$1.35	\$1.25	\$1.05
3 to 4 ft.....	2.15	2.00	1.80
4 to 5 ft.....	2.40	2.30	2.10
5 to 6 ft.....	2.65	2.50	2.30

NEW OTTAWA FLOWERING CRABS

Amisk, pink; Arrow, purple; Geneva, dark red; Makamik, rose; Scugog, purple; Sissipuk, rose and white.

	Each	Each	Each
	per 10	per 100	per 1000
18 to 24 ins.....	\$0.55	\$0.50	\$0.40
2 to 3 ft.....	.70	.65	.55
3 to 4 ft.....	.85	.80	.70
4 to 5 ft.....	1.00	.95	.85

BROOKDALE-KINGSWAY NURSERIES

Bowmanville, Ontario, Canada

WILLIAM VAN HERREWEGHE

(formerly W. E. & R. Van Herreweghe)

Export Nurseries

SERSKAMP, near GHENT, BELGIUM

FRUIT TREE STOCKS

EAST MALLING TYPES

ORNAMENTAL SHRUBS

FOREST PLANTS and Seedlings

ROSES and EVERGREENS

Prices on application.

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BOSKOOP HOLLAND

Originators of Azalea Vuyklana.
Growers of choice Nursery Stock.
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146 CEDAR ST. NEW YORK 6, N. Y.

Holland-Grown Nursery Stock

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including liners.

Rhododendrons and Azaleas

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NOVELTIES IN ALL LINES

Ask for wholesale catalog.

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BOSKOOP, HOLLAND

Growers and exporters since 1903

Maurice C. Ravensberg

Boskoop, Holland

Reliable firm for general Nursery Stock
and Belgian plants.

Catalog on application.

that the mist blowers do a fast and efficient job and can be maneuvered under windy conditions, often to good advantage, but they have definite limitations in general shade tree work so that most operators find it advisable to have at least one sprayer to round out operations.

Mist blowers can be used effectively for control of mosquitoes; control of flies in picnic areas, parks, and dumps; blowing leaves out of inaccessible places in the fall of the year, winnowing and picking up leaves, and for snow removal, particularly from branches of trees following heavy snowstorms.

Chain saws were discussed briefly and largely from the point of view that, for park work, smaller saws seem a better investment than one or two large 2-man saws.

Mr. Pond described a tree-planting machine that is mounted on skids which has been used successfully in reforestation plantings where up to as many as 10,000 trees have been planted per day. This piece of equipment offers a new and interesting side line for arborists and is a useful tool in conservation and forestry work.

The panel agreed that, in the use of all types of machinery, adequate care and maintenance is a primary necessity and, insofar as possible, each piece of machinery should be assigned to one man who can handle the machine properly and see that it is kept in working order.

NEW JERSEY MEETING.

[Concluded from page 16.]

board, brought up the question of holding a two-day meeting next year. It was suggested that Atlantic City would be a more suitable place than Trenton. No action was taken, but the officers for the coming year will consider it.

William Howe, Jr., tendered an invitation to the association to hold its summer meeting at Pennington. This also was left to the executive committee.

At a meeting of the New Jersey A. A. N. chapter, of which the officers are the same as those of the New Jersey association, the sole business was the appointment of delegates for the convention in July, Gerard Grootendorst and Albert Flemer. Alternates named were Fred Noble, Charles Hess and George Runge.

FORMERLY on Route 2 at Greenback, Tenn., the T. L. Sipe Nursery should now be addressed at Route 2, Maryville, Tenn.

10,000 Well filled, well sheared and root pruned, JUNIPERUS VIRGINIANA

	Each
30 to 36 ins., full.....	\$2.00
3 to 4 ft., full.....	2.50
4 to 5 ft., full.....	3.50
3 to 4 ft., specimens.....	3.00
4 to 5 ft., specimens.....	4.00

In lots of 100 or more.

JUNIPER GRAFTS on JUNIPERUS VIRGINIANA
at \$55.00 per 100, \$500.00 per 1000.

SNEED NURSERY CO.

P. O. Box 798

Oklahoma City, Okla.

SPECIAL

FLOWERING PEACH

Double Red and Double White

	Each
6 to 7 ft., 3/4 -in. caliper up.....	\$0.65
5 to 6 ft., 11/16-in. caliper up.....	.55
4 to 5 ft., 9/16-in. caliper up.....	.45
3 to 4 ft., 7/16-in. caliper up.....	.35

PURPLELEAF PLUM

Prunus Pissardi (Best Red-leaved Plum)

	Each
7/16-inch caliper, 4-ft. up, well branched.....	\$0.50

CHINESE ELM

	Each
1 1/4 to 1 1/2-inch caliper, 8 to 10 ft., straight.....	\$1.50
3/4-inch caliper, 6 to 8 ft., straight.....	.85

DURANT NURSERY CO.

BOX 24

DURANT, OKLA.

BROAD-LEAVED EVERGREENS, CONIFEROUS EVERGREENS, DECIDUOUS MAGNOLIAS, SHRUBS, etc.

Lining-out and finished grades. Quality stock at prices you can afford to pay. See our list in the classified ad section.

T. G. OWEN & SON, Inc.
COLUMBUS, MISSISSIPPI

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ROSEBUSHES

For 1951-52
Licensed Grower,
All-America
Introductions.

ARP NURSERY CO.

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Wholesale Catalog.
TIMELY DELIVERIES FROM REFRIGERATED STORAGE.

PECAN TREES

WALNUT and
PERSIMMON

Coming Events

MEETING CALENDAR.

February 20, Rhode Island Nurserymen's Association, Johnson's Hummock's, Providence.

February 21 and 22, American Pomological Society, Chase hotel, St. Louis, Mo.

February 21 to 23, short course for nurserymen, Pennsylvania State College, State College.

March 2 and 3, Canadian Association of Nurserymen, Royal York hotel, Toronto, Ont.

March 22 and 23, Southern Shade Tree Conference, Palm Beach, Fla.

April 4 and 5, short course on roadside development, Columbus, O.

PENNSYLVANIA MEETING.

A 3-day conference for Pennsylvania nurserymen will be held February 20 to 22 at Pennsylvania State College, State College, by the department of horticulture.

Dr. Warren B. Mack, head of the department of horticulture, will give the welcoming address and will be followed on the program by three speakers. J. O. Pepper, professor of entomology, will talk on "Insect Control for Nurserymen"; H. W. Ridgeway, Mickleton, N. J., will speak on "Chemical Soil Sterilization," and R. P. Meahl, professor of ornamental horticulture, will devote his talk to "Identification of Plants." A forum on plant materials, with slides available to nurserymen, will conclude the first day's session.

The first speaker Wednesday will be L. D. Little, Jr., instructor of ornamental horticulture, who will talk on "Winter Injury to Nursery Plants." Five other speakers that day and their topics will be H. B. Musser, professor of agronomy, "Making and Renovating Lawns"; Dr. J. R. Bracken, professor of landscape horticulture, "Planting Design Around Modern and Ranch-style Homes"; A. O. Rasmussen, professor of ornamental horticulture, "Aiding Nursery Sales Through the Extension"; Andrew Palumbo, of South Hills Nurseries, Pittsburgh, "How We Fill Orders," and A. C. Richer, professor of soil technology, "Fundamental of Soil Management." An informal banquet will be held in the evening.

"Diseases of Ornamental Plants" will be the topic of A. H. Bauer, professor of plant pathology, who will be the first speaker Thursday. Mac A. Campbell, director, barberry eradication for the state of Pennsylvania, will tell of recent progress in

that field, and Clarence E. Pontz, of C. E. Pontz & Son, Lancaster, the final speaker, will talk on "Keeping Nursery Labor Busy in the Off Season."

A. A. N. SPECIAL TRAINS TO NEW ORLEANS CONVENTION.

Arrangements now are complete for the special train which nurserymen from the midwest can take to the seventy-sixth annual convention of the American Association of Nurserymen, being held July 14 to 19, at New Orleans, according to W. J. Smart, A. A. N. transportation chairman. Through cars also will be scheduled from Boston and New York, with compartment and drawing room accommodations available.

The midwest train will leave Chicago, via the Illinois Central Railroad, at 3 p. m. Thursday, July 12. A tour of historic Natchez, Miss., including some of its southern mansions, will be featured during a stop-

over Friday, July 13. The train will arrive at New Orleans early Saturday morning, July 14, after breakfast.

On the return trip, the special train will leave New Orleans about 4 p. m. Thursday, July 19, arriving at Chicago Friday afternoon, July 20. Available for reservations on the special train will be open sections, roomettes, bedrooms, compartments and drawing rooms.

The all-expense trip from Chicago, at \$110.25 and up, includes Pullman accommodations, meals, sight-seeing at Natchez and transfer of luggage to the hotel. Reservations and further inquiries about train schedules should be addressed to W. J. Smart, at Dundee, Ill.

CANADIAN PROGRAM.

The twenty-eighth annual convention of the Canadian Association of Nurserymen will be held March 1 to 3 at the Royal York hotel, Toronto. The first day will be devoted to regi-

ARBORVITAE and JUNIPERS

First-class plants in excellent condition. B&B. Truck or carload prices. F.O.B. nursery.

ARBORVITAE

	Each
Bonita Globe and Golden Globe,	
15 to 18 ins.....	\$1.00
18 to 24 ins.....	1.25
Borckmans, 18 to 24 ins.....	1.00
24 to 30 ins.....	1.25
30 to 36 ins.....	1.50
Bluecone and Upright Bonita,	
24 to 30 ins.....	1.00
30 to 36 ins.....	1.25
Excelsa, 24 to 30 ins.....	1.25
30 to 36 ins.....	1.50

JUNIPERS

Pfitzer, 18 to 24 ins.....	1.75
Excelsa, 18 to 24 ins.....	1.25
Keteleer, 3 to 4 ft.....	3.00
Keteleer, 4 to 5 ft.....	3.50
Pathfinder, Sneed Pyramidal and	
Silverglow, 3 to 4 ft.....	3.50
4 to 5 ft.....	4.00
Royal Italian Cypress (grafted),	
3 to 4 ft.....	2.50
4 to 5 ft.....	3.00
Silverspire Cypress (grafted),	
4 to 5 ft.....	3.00

MOSTY BROS.
CENTER POINT, TEXAS

FIELD-GROWN EVERGREEN LINERS

1 and 2-yr. plants, well rooted and well furnished with plenty of tops.

	Each per 100	Each per 1000
Savin Juniper,		
1-yr., 6 to 12 ins.....	\$0.12 1/2	\$0.10
Greek Juniper,		
1-yr., 6 to 12 ins.....	.12 1/2	.10
Irish Juniper,		
1-yr., 8 to 15 ins.....	.12 1/2	.10
Irish Juniper,		
2-yr., 8 to 18 ins.....	.17 1/2	.15

300 or more plants at 1000 rate. Stock will be well packed and is guaranteed to reach you in good condition. No packing charge. Cash with order, please.

NAUGHER NURSERY
CHASE, ALA.



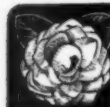
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Azaleas, Camellias, Magnolias
and a General Line of
Ornamental Nursery Stock

Lining-Out Stock Our Specialty



SEMMES NURSERIES

AZALEAS - CAMELLIAS
and other choice evergreens

Wholesale Catalog SEMMES, ALA.

tration, committee meetings and a directors' meeting. The morning of the second day will be reserved for a business session for voting members only.

For the afternoon program the speakers and their topics will be A. R. Buckley, Dominion Arboretum, central experimental farm, Ottawa, who will talk on "Trees and Shrubs Hardy at Ottawa"; Dr. H. B. Tukey, head of department of horticulture, Michigan State College, East Lansing, whose topic will be "Horticulture in Science and Society," and R. W. Oliver, horticulturist, central experimental farm, Ottawa, who will discuss "Ornamental Herbaceous Plant Varieties." A social get-together will be held at 7 p. m.

The first speaker on the final day of the convention will be Dr. Tukey, who will give impressions of "A Horticultural Flight to Europe." Two other speakers at this morning session will be N. Wood, of the federal district commission, Ottawa, who will talk on "Landscaping," and J. A. Whitmore, managing director, Allied Florists and Growers of Canada, Inc., Toronto, who will speak on "Group Insurance."

Four speakers will appear at the afternoon session. They are J. A. Carroll, secretary, Ontario Horticultural Association, who will talk on "The Consumer's Viewpoint"; W. C. Nickerson, Niagara Peninsula Fruit Growers' Association, St. Catharines, Ont., whose topic will be "What the Grower Expects from the Nurseryman"; Dr. J. G. Taggart, deputy minister, Canadian department of agriculture, who will discuss current news from his department, and Dr. Richard P. White, executive secretary of the American Association of Nurserymen, Washington, D. C., who will look to the "Future of the Nursery Industry."

MICHIGAN MEETING.

[Continued from page 11.]

portant items in nurserymen's minds, but plants really are a means to an end. It is the picture, nurserymen should sell, the settings for the picture, and the physical comforts that plantings give." Dr. Howland told of the use that the Peter Cascio Nursery, West Hartford, Conn., had made in drawing one plan to incorporate climate control, and of another plan showing the mechanics of obtaining this completed picture with its comforts. Dr. Howland also had with him a new gadget, a mechanical sundial, which could show the exact shadow from the sun any hour of

BUXUS SUFFRUTICOSA

Border flower beds and walks with our True Dwarf Boxwoods, field-grown.

	Per 100	Per 1000
6-yr., 6 to 8 ins.	\$40.00	\$350.00
10 to 12 ins.	62.50	550.00

These plants are lifted from the ground, puddled in mud, dropped in wet moss, packed in ventilated crates and shipped express collect. Terms: Cash.

PINKSTON'S NURSERIES

Phone: 22

PARROTT, GEORGIA

CHINESE CHESTNUT

Seedling and Grafted Trees

Pure *Castanea mollissima* seedling trees of the Peter Lui strain and grafted trees of the Nanking, Meiling, Kuling and Abundance varieties. Seedling sizes from 12 inches to 3 feet, and grafted trees from 4 feet to 6 feet.

Our moderate prices quoted on request.

LEELAND FARMS

P. O. Box 128

Leesburg, Georgia

MALUS

(Flowering Crab Apple)

2-yr. grafts, 6 to 8 ft., \$1.50 each

Eleyi
Floribunda
Floribunda Atropurpurea
Hopa
Niedzwetskyana

CHASE NURSERY CO.
CHASE, ALABAMA

PAUL'S SCARLET ROSEBUSHES

Heavy Graded Plants.
Priced for Quick Removal.

	Each
2-yr., No. 1 grade	25c
2-yr., No. 1 1/2 grade	20c
2-yr., No. 2 grade	14c

L. C. HOUSE & SONS NURSERIES
RT. 5 TYLER, TEX.

Supreme
Selling...

ROSES

- Nationally Advertised
- Cold Storage
- New Booking
- Highest Quality
- Standard and Patented

CO-OPERATIVE ROSE GROWERS
TYLER, TEXAS

LINING-OUT AND FINISHED STOCK

Azaleas, Camellias, Magnolias
and other Ornamentals.

Catalog on request.

OVERLOOK NURSERIES, Inc.
MOBILE, Crichton Sta., ALABAMA

Wholesale nursery
in business for 30 years.

Beautiful NATIVE RED CEDARS

Immediate and Spring. While they last. Never able to supply all our orders in the spring. Book orders now.

	Per 1000
5 to 10 ins.	\$20.00
10 to 15 ins.	35.00
15 to 24 ins.	57.50
24 to 36 ins.	12.50

Write for good prices on Hard Maples, Dogwood, Redbud, Black Walnuts, etc.

ROLLERS NURSERY

Phone 661 ROGERS, ARK.



CAMELLIAS

New low wholesale prices on field-grown, irrigated camellias. Also azaleas, fruit and pecan trees.

WIGHT NURSERIES, CAIRO, GA.

WE OFFER FOR SPRING SHIPMENT NURSERY-GROWN STOCK

Hydrangea Paniculata Grandiflora.	
	Per 100 Per 1000
6 to 12 ins., 1-yr., C....	\$ 7.00 \$ 65.00
12 to 18 ins., 1-yr., C....	11.00 100.00
18 to 24 ins., 2-yr., br....	15.00
Cornus Florida.	
	Each
2 to 3 ft., well br.....	\$0.20
3 to 4 ft., well br.....	.30
4 to 5 ft., well br.....	.45
Native Shrubs and Evergreens	
Tsuga Canadensis.	
	Per 100 Per 1000
3 to 6 ins., s.....	\$1.25 \$10.00
6 to 9 ins., s.....	1.60 15.00
9 to 12 ins., s.....	2.50 20.00
12 to 18 ins., s.....	4.00 35.00
18 to 24 ins., s.....	6.00 55.00
Ilex Opaca.	
Rhododendron Maximum.	
Kalmia Latifolia.	
	2.00 15.00
3 to 6 ins., s.....	3.00 25.00
6 to 9 ins., s.....	4.00 35.00
9 to 12 ins., s.....	5.00 45.00
12 to 18 ins., s.....	6.50 60.00
18 to 24 ins., s.....	Each Each
Kalmia Latifolia.	
Rhododendron Maximum.	
	per 10 per 100
12 to 18 ins., heavy br....	\$0.20 \$0.15
18 to 24 ins., heavy br....	.25 .20
Acer Rubrum, Sugar Maple.	
Acer Saccharum, Sugar Maple.	
Cercis Canadensis, Redbud.	
	.25 .20
3 to 4 ft., br.....	.35 .30
4 to 5 ft., br.....	.45 .40
5 to 6 ft., br.....	.65 .60
6 to 8 ft., br.....	
Azalea Calendulacea.	
Azalea Nudiflora.	
	.07
12 to 18 ins., liners.....	.12 .10
12 to 18 ins., heavy br....	.17 .15
18 to 24 ins., heavy br....	

CUMBERLAND PLATEAU NURSERY
YORK ROUTE CROSSVILLE, TENN.

SPECIALTY ITEMS

From the Center of the South.

Red-leaved Barberry,	
bushy transplants	
	Each
15 to 18 ins.....	\$0.20
18 to 24 ins.....	.30
Tree Wistaria	
	3.00
3 to 4 ft.....	2.25
2 to 3 ft.....	

THE Southern
Est. 1872
Nursery & Landscape Co., Inc.
Write for our complete new
wholesale list.
WINCHESTER, TENN.

30,000 Potted Taxus Liners

1, 2 and 3-year.

Weigela Eva Rathke, transplants.
Viburnum Rhytidophyllum.

HUMPHREYS LANDSCAPE SERVICE
MT. STERLING, KY.

GLADIOLUS BULBS

We specialize in tested and proven
best commercial cut flower varieties.
True, clean, healthy stock our principal
aim.

BENNINGTON'S NURSERY
Lake City, Iowa

the day, any month of the year. He urged nurserymen to become the climate control experts of their communities by studying the abundance of material available.

Panel Discussion.

Prof. F. L. O'Rourke, of the horticulture department, Michigan State College, serving as moderator, led lively discussions on many subjects. To two nurserymen, John Light and J. Joseph Poleo, was given the question of whether plant material from sales grounds should be sold for any less than from the fields. They replied that there was no place for two prices in the retail nursery, although possibly a policy of a charge of ten per cent more for plants selected from the field might be justified.

Several questions were directed to Prof. Forrest C. Strong and Prof. Walter F. Morofsky, of Michigan State College, on whether to continue to plant American elms in the face of disease spreads. Both men recommended continued plantings in mixed stands, but not if the tree is to be planted by itself in an important position. They cited that in one eastern community where the Dutch elm disease had occurred, there now were more elms growing than there were twenty years ago. They said control of rose chafer could be effected by a ten per cent DDT dust or three per cent of fifty per cent DDT in 100 gallons of water. This is no absolute control for the red mites, but Parathion, as a supplementary insecticide, gives good control.

Ernest N. Stanton, Westcroft Gardens, Grosse Ile, related his experiences in growing azaleas in Michigan. He stated that, if given the proper environment away from strong winds and late winter sun, and proper soil preparation to keep them in acid soil (use peat, well rotted sawdust with soil two feet deep), many varieties of azaleas will grow in Michigan. All mollis varieties and fifteen or twenty varieties of kaempferi do well in Michigan, but none of the Kurume varieties will thrive here, he said. Sulphur should be used in limestone areas after three years to keep the acid soil in condition, the formula including four ounces per square yard every three months worked lightly in the topsoil. A simple test is to plant a pink hydrangea; if it blooms blue, the soil is acid enough for azaleas.

Annual Banquet.

Following several entertainment numbers by a group of young girls

Standardized Plant Names

Lists approved scientific and common names of plants in American commerce or use.

90,000 entries

Nearly 700 pages

Should be on the desk of every buyer and seller of plants—when you prepare your catalog, when you check contract specifications, when you order from catalogs or price lists, when you seek the correct botanical or common name of any plant.

\$10.50 per copy

Order from

AMERICAN NURSERYMAN

343 S. Dearborn St., Chicago 4, Ill.

QUALITY JUNIPER GRAFTS

For spring, 1951, delivery, from 2 1/2-in. pots on Virginiana understock. We are grafting *Juniperus Virginiana* Canaerti, Glauca, Pyramidiformis (Dundee), Burki and Keteleeri.

2 and 3-yr. field-grown Grafted Junipers in the above varieties.

PAUL ARTERBURN NURSERY

P. O. Box 72 St. Matthews, Ky.

NURSERY-GROWN

Cornus Florida, 2 to 3 ft., sdgs.	
	Each
light br.....	\$0.15
3 to 4 ft., light br.....	.25
4 to 5 ft., sdgs., well br. tr....	.50
Calycanthus, 2 to 3 ft., sdgs....	
	.07 1/2
Abelia Grandiflora, 12 to 18 ins.,	
light br.....	
	.15
Amur River South Privet, sdgs.,	
1-yr., field-run, \$7.50 per 1000.	
Your want list for other stock appreciated.	

The ARNOLD C. CLARK NURSERY

Route 2 McMinnville, Tenn.

Phone: 0722

CHINESE ELM, sdgs., 1-yr.

Good caliper for the grade

	Per 1000
12 to 18 ins.....	\$ 8.40
6 to 12 ins.....	4.80
Russian Olive, 12 to 18 ins.....	
	15.00
Native Plum, No. 1.....	
	20.00
Russian Mulberry, 12 to 18 ins.....	
	9.60
Mahaleb, sdgs., No. 3.....	
	8.00

ROGERS WHOLESALE NURSERIES
BOX 132 WINFIELD, KANSAS

WANT TO BUY

50 American Sycamore, 1 1/2 to 2-in. cal.
Quotation must be for first-quality,
nursery-grown trees.

Give full particulars in first letter.

HAAS HOME NURSERIES
29th and Poplar Sts. Terre Haute, Ind.

from a Grand Rapids dramatic and dancing studio, President Greening opened the banquet program by presenting President-elect Hunziker with a duplicate of the gavel presented at Washington, D. C., last July to the American Association of Nurserymen. The gavel was given at that time in celebration of the one hundredth anniversary of the Greening Nursery Co.

He then turned the meeting over to Bernard Ward, who served as toastmaster.

In honoring the past presidents, Mr. Ward spoke first of the three deceased past presidents, R. J. Coryell, Martin Frissel and B. J. Greening. Six past presidents in attendance were the charter president, B. J. Manahan, Pontiac Nursery Co., Romeo; Arthur L. Watson, Arthur L. Watson Nurseries, Grand Rapids; Charles B. Greening; Walter M. Coon, Farmington Gardens Nursery, Farmington; Clifford R. Emlong, Emlong's Nurseries, Inc., Stevensville, and A. W. Krieger, Krieger's Wholesale Nursery, Bridgman. Unable to attend because of illness were two past presidents: Harry E. Malter, Greening Nursery Co., Monroe, and Eldon H. Burgess, Burgess Seed & Plant Co., Galesburg. Harold P. Paul, formerly with the Ilgenfritz Nurseries, Inc., Monroe, was unable to attend because he now is in another type of work. An association past president pin was given each of the men.

Charter President B. J. Manahan presented a framed certificate of honorary membership to Dr. Marshall in recognition of his thirty years of service to the nursery industry in Michigan. Dr. Marshall replied briefly in appreciation of the honor given him in the year of his promotion from horticultural professor to assistant director of the Michigan experiment stations.

Barberry Control.

Friday morning, Morris Turner, of the United States Department of Agriculture, spoke briefly of his desire to extend his department's appreciation to Michigan nurserymen for their full cooperation in the removal of rust-supporting varieties of barberry. He then showed a film on the diseases, which dramatically illustrated how the elimination of the types of barberry causing stem rust had proved of great economic saving to grain crops. In one year the estimated savings were twice the cost of all control measures to date.

Taking over the assignment of Dr. White, Curtis H. Porterfield, admin-

ROBERTS NURSERY COMPANY

DANSVILLE, N. Y.

Wholesale growers of dependable Fruit Trees, Ornamental Trees and Shrubs.

FRUIT TREES

ORNAMENTAL SHRUBS

We shall be pleased to quote on your list of wants.
All stock in storage.

APPLE TREES, 2-year

11/16-in., 9/16-in., 7/16-in., 5/16-in.

Baldwin, Cortland, Dbl. Red Delicious, Duchess, Early McIntosh, Macoun, McIntosh Red, Northern Spy, Red Astrachan, R. I. Greening, Stayman Winesap, Wealthy, Yellow Delicious, Yellow Transparent.

DWARF and STD. PEAR TREES, 2-year or 1-year

11/16-in., 9/16-in., 7/16-in., 5/16-in.

Bartlett, B. Bosc, B. d'Anjou, Clapp Favorite, Gorham, Kieffer, Seckel, Sheldon.

PLUM TREES, 2-year and/or 1-year

11/16-in., 9/16-in., 7/16-in., 5/16-in.

Abundance, Burbank, Bradshaw, Fellenberg, Green Gage, Italian Prune, Lombard, Reine Claude, Shrop. Damson, Stanley Prune, Yellow Egg.

CHERRY TREES, 2-year

9/16-in., 7/16-in., 5/16-in., under 5/16-in.

Bing, Black Tartarian, Early Richmond, English Morello, Governor Wood, Lambert, Montmorency, Napoleon, Schmidt, Windsor, Yellow Spanish.

CHERRY, 1-year

9/16-in. and 7/16-in.

Montmorency

Can also furnish 1-year SWEET CHERRY, varieties as listed in 2-year old stock.
5 to 6 ft., 4 to 5 ft., 3 to 4 ft.

PEACH TREES, 1-year

9/16-in. and up, 7/16-in., 5/16-in.

Elberta, Golden Jubilee, Halehaven, J. H. Hale, Southhaven, Valiant, Vedette, Rochester, Red Haven.

Ivan R. Congdon Nursery

CONTRACT GROWING A SPECIALTY

Wholesale

Since 1918

NORTH COLLINS, N. Y.

Grapevines, 1 and 2 years old

Blackberries, Currants and Shrubs

Black and Purple Raspberries, Tips and Transplants

Red Raspberries, No. 1 and Transplant Grades

Grown in the heart of Erie County, New York,
one of the largest small fruit sections in the world.

Chipman's RED RHUBARB

Large, No. 1 divisions.
The kind you like to get.

\$20.00 per 100

Cash with order, packing free.

Write for prices on larger quantities.

KEELER'S GARDENS

SIOUX FALLS, SOUTH DAKOTA

We Offer

OUR USUAL SUPPLY OF NURSERY STOCK

Apple	Peach	Pear
Plum	Cherry	Apricot
Figs	Grapes	Pecans

June Bud Peach
Japanese Persimmon
Ornamental and Shade Trees

Send us your want list;
write for prices.

COMMERCIAL NURSERY CO.

Nicholson Bros. DECHERD, TENN.

BUNTINGS' NURSERIES, Inc.

Growers of Quality Trees and Plants

	Per 25	Per 100	Per 250	Per 1000
STRAWBERRY PLANTS				
Blakemore, Klondike	\$0.40	\$ 1.25	\$ 2.25	\$ 7.50
Ambrosia Late, Aroma, Big Joe, Dorsett, Dunlap, Fairfax, Fairland, Gandy, Lupton Late, Massey, Midland, Missionary, Premier, Robinson, Southland, Sparkle, Temple	.40	1.25	2.25	8.00
Catskill, Fairpeaks	.45	1.35	2.50	8.50
EVERBEARING:				
Gem, Gemzeta, Mastodon, Streamliner, Superfection	.70	2.25	4.50	16.00
MARY WASHINGTON ASPARAGUS ROOTS				
3-year, No. 1	1.00	3.50	7.50	25.00
2-year, No. 1	.80	2.75	5.25	18.00
1-year, No. 1	.65	2.25	4.00	12.00
VICTORIA and MYATT'S LINNAEUS RHUBARB				
2-in. up, forcing grade	3.50	10.00	24.00	90.00
1 1/2 to 2-in. cal.	2.25	7.50	17.50	65.00
1 to 1 1/2-in. cal.	1.75	5.50	12.50	45.00
3/8 to 1-in. cal.	1.50	4.50	10.00	35.00
1/2 to 3/8-in. cal.	1.25	3.50	7.50	25.00

Ask for our wholesale list offering a general line of stock, including fruit trees, small fruit plants, shade and ornamental trees, flowering shrubs, hedge plants, Roses, Cannas, etc. Over 1400 acres under cultivation. Please use your printed stationery when requesting wholesale rates.

BUNTINGS' NURSERIES, Inc.

BOX 3

SELBYVILLE, DELAWARE

Please Mention AMERICAN NURSERYMAN When Writing Advertisers.



MALONEY BROS. NURSERY CO., Inc.

DANVILLE, NEW YORK

Our 67th Year — Over 400 Acres

One of the largest producers in New York State of Hardy Upland-grown, Inspected for Trueness-to-name Fruit Trees offers a complete assortment of

Standard and Dwarf Apple, 1 and 2-yr.

Plum, 1 and 2-yr.

Standard and Dwarf Pear, 2-yr.

Sweet and Sour Cherry-Quince, 1 and 2-yr.

Peach, 1-yr.

Also a good assortment of Shrubs, Shade Trees, Evergreens.

Write for our Wholesale Price List — Save Money

L. R. TAYLOR & SONS

Topeka, Kansas

APPLE, PEAR, MAHALEB Seedlings.

APPLE, PEACH, CHERRY, PLUM Trees.

Write for quotations.

HEADQUARTERS FOR

East Malling IX
Dwarf Rootstock

\$18.00 per 100

\$150.00 per 1000

VAN HOF NURSERIES

Bristol Ferry Rd. PORTSMOUTH, R. I.

SMALL FRUIT PLANTS

Thirty varieties of Grapes, including the

Siebel No. 1000

also

Currants and Berry plants

Write for price list.

FOSTER NURSERY CO., Inc.

FREDONIA, N. Y.

istrative assistant in the A. A. N. Washington office, who flew to Grand Rapids after appearing the day before at the Ohio nurserymen's meeting at Columbus, had a refreshing approach to the serious and confused state of affairs at Washington. He urged nurserymen not to lose their perspective in the daily changing affairs. The Washington A. A. N. office thinks it well to prepare for the worst in labor shortages, material shortages and plant material scarcities.

Business Session.

In addition to resolutions previously mentioned, another was adopted recommending certain changes for clarification in plant act 189, which had not been amended since 1931. It was reported that the gladiolus industry in Michigan had asked for full inspection of its crops.

The education committee recommended additional support of the 2-year training course at Michigan State College and of the newly formed 4-year course in ornamental horticulture, which was started largely through the efforts of Dr. Marshall.

Members accepted the invitation of John Light to hold the summer meeting at Kalamazoo, August 16 and 17. The dates for the 1952 annual meeting at Detroit are January 30 and 31 and February 1. Arthur L. Watson, chairman of the convention committee, and his assistants, Claude Jones, Jones Landscape Co., Grand Rapids, and William D. Barnaby, Barnaby's Landscape Nursery, Grand Rapids, were given a vote of thanks for their efficient management of the Grand Rapids meeting.

A. A. N. Chapter Meets.

At a short meeting of the Michigan chapter of the A. A. N., it was unanimously recommended to the A. A. N. board of directors that B. J. Manahan be appointed general chairman of the committee for the 1952 A. A. N. convention at Detroit.

A committee will be appointed to confer with the Ohio and Indiana nurserymen's associations on a possible joint winter meeting for 1953 in a central city of the three states.

William Conway was elected delegate to the A. A. N. convention for the next two years. Holdover delegates are A. W. Krieger and Charles B. Greening. Alternates are George Merryweather, Plymouth; Harry Malter, Monroe; Henry Kleine, Newport; R. W. Steffer, Bay City; John Light, Richland, and Walter Studley, Fennville.

WESTERN NEW YORK MEET.

[Concluded from page 19.]

Callicoon, president of the New York State Nurserymen's Association, who offered suggestions for a bigger and better association. He urged the younger members to take an active part in the meetings. He requested that all members use the association bulletin, Nursery Notes, to better advantage and that they send in items of interest about nursery operations and personal happenings and also constructive suggestions for improving the association for the bulletin.

Wilbur Wright, superintendent of the Rochester parks, was introduced, and he extended a cordial invitation to nurserymen to visit the parks often. He remarked about the gorgeous display of lilacs in the Highland park section of the city, stating that countless thousands of persons come each season to view them.

Ernest Schaufler, 4-H Club specialist in ornamental horticulture, Cornell University, reported that through the generosity of the New York State Nurserymen's Association, he was again able to arrange a trip to the International flower show at New York city in March for the three winners in the state 4-H Club home beautification project.

The final session of the meeting was planned in the form of a question-and-answer panel. This was headed by Dr. A. M. S. Pridham, associate professor of floriculture and ornamental horticulture, Cornell University. He was assisted by Dr. David Rodney, New York agricultural experiment station, Geneva; Clarence VanderBrook, C. W. Stuart & Co., Newark, and Maurice Switzer, Jackson & Perkins Co., Newark. The opening subject, "Defoliation of Nursery Stock by Use of Chemicals," was discussed in all its various phases, such as what is gained by defoliating nursery stock, how it prevents heating of early fall shipments by eliminating foliage and how it permits plants to retain original size which might otherwise be reduced by use of leaf-stripping machines.

VACATIONING nurserymen who recently enjoyed a fishing trip together at Miami, Fla., were Carroll C. Perkins, of Jackson & Perkins Co., Newark, N. Y.; Clarence Aldrich and Lucille Farrar, Aldrich Nursery, Farmington, Mich., and Herman Zinn, Mittermeyer Nursery, Rochelle Park, N. J. Mr. Perkins purchased a home at Miami Shores in December.

SURPLUS LIST OF PEACH

Ready for Immediate Shipment.

	30c ea. 7/16-in.	20c ea. 5/16-in.	15c ea. 2 to 3 ft.
Alton	100	.....	100
Belle of Georgia ...	200	1000	.....
Champion	100	100	.....
Elberta	2000	1200	750
Early Elberta	500	200	.....
Gage Elberta	600	1200	.....
J. H. Hale	1000	1000	.....
Halehaven	300	300	.....
Redhaven .....	.....	500	.....
Frank	200	100	.....

NEOSHO NURSERIES**NEOSHO ★ ★ ★ MISSOURI****J. H. SKINNER & CO.**

Topeka, Kansas

WHOLESALEERS of:

2-year Apple

1-year Cherry, Peach, Apricot and Plum.

Apple and Pear seedlings, all grades.

Miscellaneous Ornamentals

Write for our reasonable prices.

Your inquiries appreciated.

We are proud of our grade and quality of stock.

WE OFFER . . .**Our General Line of****SMALL FRUIT PLANTS**

Let us quote on your requirements.

L. J. RAMBO'S WHOLESALE NURSERIES

Bridgman, Michigan

STRAWBERRY AND BLUEBERRY PLANTSalso
Raspberry, Grapevines, Boysenberry,
Dewberry, Blackberry and Horse-radish.

Shipped direct to you or your customers.

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these outstanding products*

Chipman's Canada Red, MacDonald and Valentine Rhubarb.

Minnesota Fruit Breeding Farm creations.

Bush Cherry and Plum Seedlings.

SUMMIT NURSERIES

STILLWATER, MINN.

SMALL FRUIT PLANTSEvergreens—Shrubs
Asparagus—Rhubarb

Send for Complete Trade List.

W. N. SCARFF'S SONS
NEW CARLISLE, O.



CALIFORNIA ASSOCIATION OF NURSERYMEN

ELMER J. MERZ, Executive Secretary
304 MITAU BUILDING SACRAMENTO 14, CALIF.

LOS ANGELES CHAPTER.

Approximately 150 persons were present at the regular meeting of the Los Angeles chapter of California Association of Nurserymen, January 24, at Carpenter's Santa Anita, Arcadia. The meeting was called to order by President Martin Usrey, who then called for a vote of thanks to the committee members who arranged the Christmas party. Jim Meadows introduced the new members present. F. C. (Tommy) Tomlinson, information chairman, reported on news items concerning the trade. Tad Uyene, plant forum chairman, showed and described a new ilex from Select Nurseries, Whittier, and a new aralia from Bordier's Nursery, Covina.

Bill Rodman, chairman of the international flower show, was introduced and reported on the progress of the show, stressing the increase in size to over six acres of floor space, and the special exhibits of Dutch bulb firms and Twentieth Century-Fox film studios. He announced the advance-sale tickets at a reduced price would be available at his office or at the Buena Park Greenhouses.

David Cunningham stated the next meeting would be the annual camellia meeting at the Elks' Club, at Alhambra. Then, as program chairman for the evening, Mr. Cunningham announced the theme of the evening forum, "Selling Through the Eyes of Salesmen." He introduced Harry Marks, general sales manager of Germain Seed & Plant Co., as moderator, who in turn introduced the panel composed of James Gibbs, of Winsell-Gibbs Seed & Nursery Co.; Kenny Kay, of Bamico Gardens; Phil Franke, of Park Nursery, and Ernie Lang, of Armstrong Nurseries.

Mr. Kay emphasized personality, personal appearance, knowledge of merchandise and customers and special services to the customers. Mr. Gibbs emphasized nursery appearance, price labeling, color pictures, advance information of new stock, advertising sales talks for manufacturers, placing all fast-moving items near the front of the salesyard and keeping the manager available to help salesmen. Mr. Franke

pointed out that the interesting facts about the history of plants might make good selling points. Mr. Lang emphasized the need of knowing the availability of requested merchandise, of true advertising and of a sincere liking of plants by the salesman. R. E. Weidner, Sec'y.

REDWOOD MEETING.

The eighty-first meeting of the Redwood Empire chapter of the California Association of Nurserymen was called to order by President Prickett at the Hamilton House, Fairfax, January 9.

Tony Campiglia reported that Mr. Jamison, of the Sonoma county fair board, would soon meet with the nurserymen to draft plans for the coming fair.

A letter from the executive secretary's office on proposed legislation by the landscape architects' association was read and referred to the

board of directors for action. Don Perry gave a further report on the September and October meetings of the bay area nurserymen. The meetings were attended by representatives from twenty nurseries, and members hired a certified public accountant at \$50 per member. After the nurseries submitted their accounts, fifteen served as a basis for analysis. They showed a forty-five per cent gross profit, with a net profit of about 1.6 per cent. It was agreed that the only solution was to raise prices.

The following facts came out of the bay area nurserymen's meetings: It was found to cost twenty-eight per cent to sell nursery products. An increase of ten per cent in prices was deemed not enough to cover rising costs. Nurseries cannot operate on less than a forty per cent markup, and most goods need to be marked up three times their cost. But prices on hardware items, sprays and fertilizers have to be kept in line with competitive lines. Nursery stock turns over two or three times a year.

A resolution was passed to invite other nurseries to submit accounts

RIDER'S HARDY STRAWBERRY PLANTS

All stock F.O.B. Farmington, Ia.

	Per 1000
Superfection Everbearing	\$20.00
Minnesota 1166 Everbearing	18.00
Gem Everbearing	14.00
Premier, Temple, Bellmar	9.00
Fairland, Sparkle, Minnesota 1118	9.00
Dunlap, Giant New Robinson	7.50
Blakemore, Beaver	7.50

	Per 100
Linnaeus Rhubarb, 1 to 2-in. cal.	\$ 5.00
Linnaeus Rhubarb, 1/2 to 1-in. cal.	3.00
Horse-radish Crowns	5.00
Horse-radish Roots	3.00
Sage Plants	12.00
Mixed Dahlia Tubers	12.00
Mme. Crozy or Y. K. Humbert	
Cannas	5.00

GRAPEVINES

	Per 100
Concord, Fredonia, Niagara	
1-yr., No. 1	\$ 6.00
Beta, Bluejay, 2-yr., No. 1	12.00

GLADIOLI

	Per 1000
Spotlight, No. 1	\$25.00
King Lear, Gardenia, No. 1	16.00
Token, Lulu Hunt, No. 1	16.00
M. Fulton, Florists' Mix, No. 1	14.00

Other grades, varieties, available. Hybrid White Hulleis lopop Popcorn, shelled, cleaned, very good, \$10.00 per 100 lbs.

Write for our Wholesale List and information on a general line of nursery stock. We have a direct shipment service for handling orders shipped direct to your customers. We also have available a good selection of standard northern varieties of Apples and Plums.

Growing contracts on above type of stock.

RIDER NURSERIES

Farmington, Iowa

FRUIT TREES

Apple	Pear
Plum	Cherry

Write for quotations.

ULLYETTE BROS. NURSERIES
Dansville, N. Y.

FRUIT TREES

Apple, 1 and 2-yr., Dwarf and Standard.

Pear, 1 and 2-yr., Dwarf and Standard.

Plum, 1 and 2-yr.

Sweet and Sour Cherry, 1 and 2-yr.

Quince, 2-yr.

Apricot, 2-yr.

Peach, 1-yr.

Write for our wholesale list.

KELLY BROS. NURSERIES, Inc.
DANSVILLE, N. Y.

2-YEAR SWEET CHERRY

on Mazzard roots.

11/16-in. and 1-in. and up.

Write for list.

Let us quote on your requirements.

ENTERPRISE NURSERIES
R. D. 1 WRIGHTSVILLE, PA.

to the accounting firm of Lindquist, Von Hausen & Joyce, 600 Market street, San Francisco, for breakdown and for comparison with the original survey. This service would cost about \$20 a firm. All information would be confidential.

Pat Flynn, program chairman, then introduced Mr. Goldman, of the California Spray-Chemical Corp., Richmond, who gave a brief outline of the advertising activity for his company for the coming year. The firm will try to sell the public on beautiful gardens and on the products needed to keep those home gardens in the best condition.

Because eighty per cent of the nurserymen do not understand merchandising, he said his company is preparing lectures on all nursery products, the prime purpose being to sell merchandise that will in turn result in good profits to the nurserymen. Other aids such as radio programs also are proposed.

Mr. Goldman was invited to show pictures at the February meeting. Movies of azalea and camellia culture and a film entitled "Mysteries of Plant Life" also will be shown.

Hugh Wallace, Sec'y.

CALIFORNIA NOTES.

Nurserymen in the San Francisco bay area who submitted their books to a certified public accountant for study have been given their report. Books from about twenty-five firms were submitted. It was reported that the records showed the average net income of these nurseries was about 1.6 per cent of the investment. Some nurserymen who believed their firms were making large profits were told that they were not showing charges on such items as salary for owner's services, interest on investment or a rental charge for owned land and other items generally considered overhead; so they were in reality operating at a lower profit. It was suggested by the certified public accountant that certain items now being carried at retail nurseries be dropped and that more effort be placed on moving at a faster rate those items which show a profit.

When he was guest speaker at a recent meeting of bay area arborists at Redwood City, Russell Nelson, of Shell Chemical Corp., San Francisco, told of the recent increase in the frequency of oak tree scale disease in this area and of the attempts to eliminate the disease. There has been an increasing loss of live oaks in the area. There is no known positive control of the disease, but tests are being conducted at Leland Stanford



Above — A FEW OF MONROVIA NURSERY'S MILLIONS OF LINERS

America's Finest Liners — Our Sales Prove It

Monrovia Nursery Liners out-sell all others because: (1) You can *always* depend upon their *fine quality*. (2) They are safety packed in *feather-weight* cartons **FREE OF CHARGE**. (3) They always arrive in *perfect condition*. (4) It costs *next to nothing* to ship them Express. Any way you figure, "M-N" Liners are your *best buy*, everytime. Below we list a few from our selection of over 400 varieties. In 2¼" pots, priced F.O.B. Monrovia. Minimum quantity 25 per variety.

	2¼" Pots	EACH
Abelia grandiflora		12c
Cotoneaster horizontalis		12c
Cupressus sempervirens glauca		17½c
Erica melanthera rosea		15c
Euonymus japonicus		12c
Feijoa sellowiana		10c
Gardenia veitchi		15c
Hibiscus Kona		15c
Ilex cornuta (Seedling)		15c
Pyracantha Lalandi		15c
Pyracantha Rosedale (Trade Mark Reg.)		17½c
Spirea reevesiana		12c
Thuya orientalis aurea nana		20c
Thuya orientalis pyramidalis		15c

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SALES**

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Stribling's
GROWING  QUALITY

**PEACH, NECTARINE
& ALMOND Varieties**

Grown on

S37 ROOTSTOCK PLANT PAT. 904
**America's finest nematode
resistant Peach Rootstock**

S-37 Seed is now ready
and we are licensing nurseries
to grow S-37 rootstock
for 1951-52

Write for complete information.

*A complete line of
Fruits, Nuts and Grapes*

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CHERRIES
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PEARS
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POMEGRANATES
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**We will Grow ANY
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Bulletin containing fact-
ual information to help
you sell more Fruit Trees
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Today for your FREE
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University, using heavy dormant oils. The oils will eliminate the pests, but tend to harm the trees. Complications in the spray program are the two or three species of the insect which respond differently to spraying and the overlapping of generations. Applications of the spray are being made by Victor G. Weltsin, local pest control operator.

Mr. and Mrs. Herman Sandkuhle, of Sunset Nursery Co., Oakland, have announced the birth of Judie Bea, their third daughter and third child.

James Wilson, of Peters & Wilson Nursery, Millbrae, is a member of the civilian defense board of Burlingame, where he resides.

The Crombie Nursery, which was located at 8751 MacArthur boulevard, Oakland, has been moved about two miles south to San Leandro. At the larger location, an attractive, modern-type sales and office building has been erected.

V. T. Stoutemyer, professor of ornamental horticulture at the University of Southern California, Los Angeles, has been appointed a sectional chairman of the Society for the Advancement of Horticulture.

Joseph Rabaldo, 51, employed by the Pappas Bros. Nursery, at Colma, was found dead at the entrance of a building on the nursery grounds. The coroner said he had apparently suffered a heart attack.

Approximately 200 growers of all types of agricultural crops met recently at Lancaster, in Los Angeles county, to discuss a rain-making plan. A Pasadena firm indicated it thought it could increase the rainfall in that area by about 250 per cent at a cost of approximately \$10,000. The growers approved the project on a year's trial and will ask the county board of supervisors to share half of the costs.

H. L. Popenoe, horticulturist at Pomona College, Claremont, has been appointed a member of the new commission on parkways and trees at Pomona. The commission will supervise the care of more than 3,000 young trees planted recently along the parkways of the city streets and will advise in the care and plantings of memorial recreational parks.

Clifford Hyde, of H. A. Hyde Co., Watsonville, last month went to the firm's northern California strawberry grounds to supervise the shipping of this year's crop, which usually is a job of six to eight weeks.

Mrs. Annie S. Perry, mother of Donald C. Perry, San Anselmo, died at her home at Sausalito recently at the age of 83. W. B. B.

"There's No Business Like the Rose Business"

*We're weary and tired,
Our work half thru,
We work all night
To get roses to you.*

*The weatherman dealt
A card from the bottom;
The roses we had,
We just ain't got 'em.*

*We appreciate more
Than words can tell
Your waiting with patience;
You've all been swell.*

*A knock at the door,
I'll go see,
More "midnight oil"
You've brought for me?*

*I'll need all this
And maybe more
To finish the work
I've got in store.*

*It's worth it all,
As everyone knows,
There's beauty unmatched
In the heart of a rose.*

WEEKS WHOLESALE ROSE GROWER



O. L. WEEKS

R. F. D. Box 323
SANTA ANA, CALIF.



FOR 1951 SEASON

Fruit Trees
Small Fruits
Fruit Tree Seedlings
Flowering Trees
Shade Trees
Shrubs
Roses

and a general assortment of other
nursery stock.

Ask us to put your name on our
mailing list. (Use your letterhead.)

RICH & SONS NURSERY
Hillsboro, Oregon

DEL RANCHO FORTUNA
FRUIT TREES
and
GRAPEVINES

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McFARLAND, CALIF.

UNIFORM SUN CONTROL WITH **ALUMALATH** (ASSEMBLED WITHOUT NAILS)

**CHOOSE WHERE YOU WANT THE SUN!
CHOOSE WHERE YOU WANT THE SHADE!**

SO POPULAR!

Attractive — Beautiful
Sturdy — Long lasting
Easily assembled — Light weight
Fire proof — Weatherproof
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SO MANY USES!

Uniform shading from one foot to acres
Patios . . . for gracious outdoor living
Lath houses . . . for things you want to grow
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Greenhouse coverage
Or you decide where!

MIN-ALUMALATH...



For Low Plants or Flats



Shade for People



Adjustable to 5 feet high

Packaged Minalumalath is sold in 4' by 4' for Plants and People

HARRY H. REYNOLDS

2565 VALENCIA ST., SANTA ANA, CALIFORNIA

Hundreds of Nurserymen are profiting today... Write Now!

NORTH CAROLINA COURSE.

[Continued from page 18.]

is about the same as in the past two years. The state has been spraying with DDT and has the spread of the beetle almost under control.

Discusses Seeds, also Pruning.

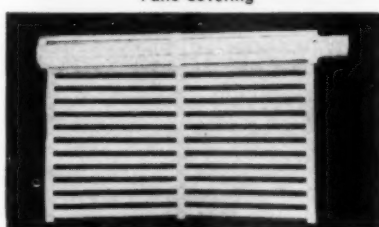
Walter Campbell, horticulturist, of Greensboro, N. C., spoke on "The Care of Plants in the Nursery." He told the nurserymen that in collecting seeds, be sure to gather the best ones. All seeds have to be cleaned, and for magnolia, dogwood and nandina seeds, all the pulp has to be removed. To do this, soak the seeds in water until the pulp rots off. Mr. Campbell told of an experiment he conducted a few years ago of putting yeast in the water. The yeast will speed up the removal of the pulp, he said, and also leave the seeds clean, with no washing required. When planting the seeds, preparation of the soil is important. Plow deeply so that the roots will have plenty of room in which to grow, and also provide good drainage. Let the seedlings grow until they reach eighteen to twenty-four inches in height. When transplanting, prune the roots and cut off all the broken ends. Have a trench with a wide bottom and be



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"lays like a cornucopia"

California-grown Rosebushes —

Plus Service

We specialize in growing rosebushes for sale at wholesale in lots of 100 to 10,000. Through specialization we are able to offer the best in rosebushes and service. Your inquiry will receive our prompt attention.

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TREE PEONIES

Ready for Immediate Shipment

2 and 3-year-old plants, grafted, approximately 2 feet high,
at \$1.75 each.

TAMA-FUYO, pure red, large double petal.

MOMOYAMA, pink, large double petal.

CRIYODANISHIKI, light red, double petal.

HAMUBANRIU, snow-white gigantic double.

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San Francisco 3, Calif.

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sure the roots are not bent in toward the stem.

Pruning trees will improve their appearance and also help the general health of the plant, Mr. Campbell continued. Large branches need to be cut off up to seven feet, but small twigs should be left along the trunk. By leaving these small twigs and clusters of leaves on the trunk, the tree will grow better because of the added foliage from which to draw nourishment. Be careful not to leave a bad crotch. Cut off birch and elm trees about six inches above the ground, and when the new leader grows up, it will be straighter. All trees need to be root-pruned or transplanted to improve the root system, he concluded.

Plants for Small Homes.

John Harris, extension horticultural specialist, began his talk on "Plants for the Small Home" by complimenting the nurserymen for using more broad-leaved evergreens in their plantings and added that they should also use more native plants.

In talking about the most important reasons for landscaping a house, he mentioned that trees are needed for shade, to make a setting for the house and to serve as a background. Screen plantings are necessary to hide undesirable buildings and work areas and to add privacy to the home. Trees and other plants also are used in framing the house and to emphasize certain features of the architecture. The foundation planting should consist of more desirable plants than are used in some cases, he stated. Do not use plants that in a few years will be so large that they hide the whole house. Care must be taken against overplanting, for fewer plants will often create a better effect. More attention needs to be paid to screening and bordering rather than to foundation planting.

Mr. Harris then demonstrated how his suggestions could be applied to landscapes by using colored cut-outs of shrubs and placing them on a model of a painted farmhouse and grounds. Slides were shown of landscaped houses, and Mr. Harris pointed out their good features or the corrections that were needed.

In a talk on the past, present and future of the nursery business in North Carolina, O. Joe Howard, of Lindley Nurseries, Greensboro, stated that there were only two nurseries in the state in 1898. Lindley Nurseries, one of the pioneers, were the first to introduce landscaping service. Of interest is the fact that

this idea was so new then that the first planting had to be done purely for advertisement. At that time the public wanted only plants that would produce, such as fruit trees. Mr. Howard then summed up the present situation and made suggestions that would benefit nurserymen in the future.

The One-man Nursery.

The guest speaker, F. L. O'Rourke, department of horticulture, Michigan State College, discussed "The Operation of the Small Nursery."

In picking a location for a retail nursery, select a community that is

progressive, and try to locate the nursery where it will be easily accessible to the public, such as on a well traveled highway. Locate the nursery so that a display garden can be included, because the public is always interested in seeing the growth habits of specimen plants in their proper location.

Good soil and an ample water supply are important, and the nurseryman also must consider the supply of good labor.

Mr. O'Rourke said that amount of acreage is a poor standard to use in comparing nurseries. Eighty-five per cent of the nurseries in the

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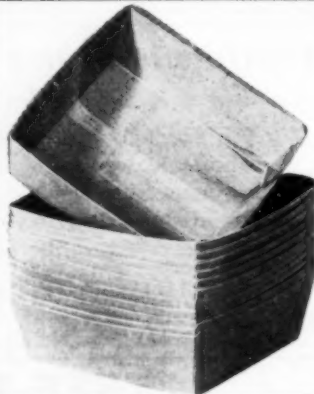


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United States are less than ten acres in size; so it is not the size of a nursery, but the profit that counts. Every nursery is a separate business; no two firms ever operate in the same manner. Most wholesale nurseries do some retail business, and retail nurseries sometimes sell at wholesale. Nurserymen even differ on ways to propagate and grow various plants.

Mr. O'Rourke then stressed soil conservation in the nursery, stating that, in order to keep up the tilth of the soil by planting cover crops, there should be a plan of rotation. Most nurserymen just plant instead of planning where and when to plant.

Mr. O'Rourke cautioned the small nurseryman not to expand too much, because it costs more money to operate today, and expansion may mean having to hire someone to take charge of part of the business. If this is done, the gross income may have to be doubled in order to pay the extra salary. New equipment can save money, but before buying it, be sure it can pay for itself in labor saved.

The nurseryman should have a good selection of plants and the types of plants that meet the needs of his customers.

Many nurseries extend themselves too far, he said, by trying to include everything. Some that specialize in landscaping try to propagate their own stock, whereas it would cut down on maintenance for them to buy lining-out stock and grow it to salable size. One man cannot handle too many phases of the nursery business. Mr. O'Rourke reminded the group that he was talking about a one-man nursery. If some nurserymen dropped half their projects, they would, in a great many cases, make larger profits, he said.

In discussing what plants to grow, Mr. O'Rourke suggested that the nurseryman grow the plants he likes and the plants he knows how to grow. Do not waste time on plants that are not suited to your climate or soil, or on methods of growing, and do not try to grow too many varieties, which will only confuse customers when they make their purchases. Concentrate on growing material that is in demand and that will suit the purchasing power of prospective customers. Plant some species every two to five years and try to predict sales at the time you plant so that there will not be a surplus one year and a shortage the next.

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stock. He advised discarding weak or sick plants because the effort spent in trying to grow these plants up to standard is too expensive.

In the marketing of plants, an important item is to educate each customer in the use of plants. He suggested tying in with the "Plant America" program and the idea of using plants for climate control. Writing a garden column for the local newspaper is another good idea. A display planting can be useful in educating the public. And the mailing of circulars in the community, offering gardening advice as well as telling people what you have to offer, is another idea.

Have the desire to help people in your community. Promise as little as you can, but always do more than you promise. Call back a few months after planting to see how the plants are doing and to give advice. A good-will service always shows returns.

Never be afraid to give a right price, because the public does not expect a nurseryman to cut prices. It expects him to make a profit as well as any other businessman. Send bills out promptly, and pay your own bills promptly.

Mr. O'Rourke thought that all nurserymen should try to keep records on the cost of producing nursery stock. The direct costs are maintenance, which includes soil preparation, pruning and planting; propagating or buying liners; handling, such as digging, burlapping and delivery and selling expense, advertising and labor. Some indirect costs in running a nursery are administration, which includes office and traveling expenses, mail and salaries; equipment and supplies; general overhead, including interest, insurance, taxes and social security, and depreciation.

Panel on Landscaping.

E. G. Thurlow, head of the department of landscape architecture, led a panel discussion on landscaping. One idea offered was that if a house has a picture window at the front, a screen can be planted so the public cannot see into the house. Between the screen and the house would be a good location for specimen plants and a flower garden, which would give a good view from the inside of the house through the picture window.

The nurseryman should know the plants that he recommends and should try to induce his customers to invest in more dwarf plants even though they cost more, because plants will look better in the future if they do not grow too large. Plants

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should not be placed too close to the front door and will give a better effect if they are not planted too thickly all the way around the house.

Suggestions were made for landscaping small houses on small lots. If the owners have only a small amount of money for landscaping, screens and trees were thought to be more important than foundation planting. Screens will hide clotheslines and other eyesores; trees will provide shade and make the house more livable. If any money remains, a few plants can be placed around the house. If it is possible, the nurseryman should show the prospective customer a rough sketch of the suggested planting when he inquires about landscaping his house.

Thursday night the North Carolina Association of Nurserymen held a banquet in the Grill room of the college cafeteria. L. R. Casey, Goldsboro Nursery, Goldsboro, was the master of ceremonies.

At the business meeting of the state association, James Ferger, of Wilmington, presided because of the absence of President Daniels. Members voted to hold their summer meeting at Richmond, Va., at the same time as the meeting of the Southern Nurserymen's Association.

Jack Gartner, extension specialist in horticulture, was voted an honorary member of the North Carolina association, in appreciation of the work and cooperation he had given the nurserymen.

ANNOUNCEMENT has been made by Harry Rosedale, president, that Homer Bonillas has joined the sales force of the Monrovia Nursery Co., Monrovia, Calif. Mr. Bonillas resides at Pico with his wife and their daughter.

MODERN NURSERY, 3024 North Puente boulevard, El Monte, Calif., was opened for business December 3, with a grand opening being held there at a later date. L. H. Hall and Bob Roberts are the co-owners. Henry Morales, formerly propagator for Roy F. Wilcox & Co., Montebello, is the manager. Mr. Morales has been in the nursery business for many years in California. Specializing in foliage plants, including tropical plants, for the home, Modern Nursery is located on two major highways, occupies three-quarters of an acre and has a beautiful new modern building, with plate-glass windows on all sides, for the display of merchandise. A convenient feature is the concrete walks throughout the lath houses. A. K.



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Yellow King Humbert, yellow blotched with red, light green foliage, 3 to 4 ft. 5.00 42.00

DAHLIA TUBERS.

Exhibition Decorative Type.

Per doz. Per 100

250 Clara Carder, large, cyclamen-pink \$2.50 \$20.00

1100 Kemp's White Wonder, large, white 2.50 16.00

150 Lois Walcher, enormous purple, tipped white. 4.00 30.00

3000 Mrs. M. W. Wilson, enormous, creamy white suffused with pink 3.25 15.00

100 Michigan, white, large, heavy bloomer 3.50 35.00

600 Sagamore, large apricot-buff 3.25 15.00

500 Rose Glory, large, rose-lavender 2.25 15.00

1500 White Jersey Beauty 2.50 15.00

400 Big Gue, orange-scarlet 1.50 10.00

1000 Arlene, shell-pink 1.50 10.00

200 Gallant Fox, red 1.50 10.00

150 Dr. Tevis, salmon-pink 1.50 10.00

1250 Yellow Colosse, yellow 1.50 10.00

3000 Porthos, extra-large, red 1.50 8.00

100 Avalon, light yellow 1.50 11.00

200 Blue Moon, pale purple 1.50 11.00

300 Break O'Day, pink 1.50 11.00

500 Coral, coral-pink 1.50 11.00

500 Jean Kerr, florists' favorite, white 1.50 11.00

100 Judge A. B. Parker, yellow-buff 1.50 11.00

200 Ellnor van der Veer, glowing pink 1.75 12.50

100 Mrs. J. G. Cassett, dark pink 1.75 12.50

200 Ganell, large, deep scarlet 1.75 12.50

200 P. C. Anderson, extra-purple 1.75 12.50

200 Ross Neil, deep rose-pink 1.75 12.50

600 Sanhican's Bluebird, large, bluish 1.75 12.50

300 White President, large, white 1.75 12.50

100 Lowell Thomas, light pink 2.00 14.00

400 Mrs. Geo. LeBoutillier, large, red 2.00 14.00

400 Josephine G., large, pink 2.00 14.00

250 Jane Cowl, bronze-buff 2.25 15.00

500 Jersey Beacon, enormous scarlet and buff 2.25 15.00

150 Oyster Bay Beauty, large oxblood-red 2.00 14.00

500 Pride of Austenberg, large, red 2.00 14.00

2000 Mrs. L. de Ver Warner, large, orchid-lavender 2.00 14.00

ELEPHANT EARS.

Caladium Esculentum.

Makes a wonderful show plant in gardens.

Per doz. Per 100

Large size, 7 to 9 ins. in circ. \$2.25 \$18.00

AMARYLLIS HYBRIDS.

Mixed.

This mixture contains a lot of nearly whites, red and pink shades.

Per doz. Per 100

Fancy large bulbs, 2 1/2 to 3 ins. \$2.25 \$18.00

(Continued on next page)

(Continued from previous page)
FINEST FANCY-LEAVED
CALADIUM BULBS.

	Per doz.	Per 100
1 to 1 1/2 ins.	\$1.25	\$9.00
1 1/2 to 2 ins.	2.25	16.00
2 to 3 ins.	3.00	20.00
3 to 4 1/2 ins.	4.50	30.00

TUBEROUS ROOTED
BEGONIA BULBS.

Double, Camellia-flowered.

Get your choice of the colors you wish:
White, red, orange, scarlet, rose, salmon, copper, yellow.

	Per doz.	Per 100
Large sizes, 2 ins. up.	\$2.00	\$12.50
First sizes, 1 1/2 to 2 ins.	1.50	9.00

All orders cash or C.O.D.

HOWARD STREET FANSY GARDENS

Kalamazoo 99, Mich.

300,000 MICHIGAN-STATE-INSPECTED
GLADIOLUS BULBS—Flaming Sword, brick
red; Corona, cream, pink edge; Blue Beauty,
blue; Elizabeth the Queen, lavender; Ethel
Cave Cole, large pink; June Bella, early
white; King Lear, purple; Leading Lady,
cream; Margaret Beaton, white with red
spots; Ravi Fallow, dark red; Picardy, heat
pink; Spotlight, yellow, red spots; Stoplight,
ruffled red; Snow Princess, beautiful white;
Margaret Fulton, coral-pink; White Gold,
large, ruffled cream; Beacon, red, yellow
throat; Golden Teton, yellow; Snow Bank,
white; Black Opal, dark red; Oregon Rose,
large rose; Oregon Gold, yellow; Lavender
Dream, lavender; Rialgar, orange. One price
on all varieties. Prices are per 1000; 100 at
1000 rate.

No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
\$20.00	\$16.00	\$12.00	\$10.00	\$8.00	\$4.00

Bulbets, \$1.00 per 1000.

EDWARD GORZINSKI NURSERY

Rt. 1 Powers, Mich.

IOWA-GROWN GLADIOLI.

Per 1000	No. 1	No. 2	No. 3
Dr. Bennett	\$18.00	\$15.00	\$12.00
Hindenburg's Memory	18.00	15.00	12.00
Red Charm	18.00	15.00	12.00
Raven	18.00	15.00	12.00
Mrs. Lulu Hunt	14.00	11.00	8.00
Gardenia	14.00	11.00	8.00
Rosa van Lima	12.00	8.00	6.00
Maid of Orleans	12.00	8.00	6.00
Margaret Fulton	12.00	8.00	6.00
Rosalee	12.00	8.00	6.00

Special closing-out sale of Florists' Supermix,
17 varieties. No. 1, \$10.00; No. 2, \$8.00; No. 3,
\$6.00, all per 1000.

IOWA NURSERY Farmington, Ia.

GLADIOLUS BULBS in Boxes or Bulk.

12 choice gladiolus bulbs, assorted colors, in
boxes with colored picture label for retail
sales.

10 boxes per case, \$7.50; 100 boxes, \$35.00.

Sample box for 50c.

Also choice colors mixed gladiolus bulbs,
blooming size in bulk, per 1000 bulbs. No. 1,
\$15.00; No. 2, \$10.00; No. 3, \$12.00.

55 bulbs at 1000 rate, many good varieties.

Cash, please.

JOHN G. VUCICH

Watervliet, Mich.

Write for complete list of
Tuberous-rooted Begonias, Gloxinias, Fancy-
leaved Caladiums, Tuberoseas, Gladioli, Dah-
lias, Amaryllis, etc.

MONARCH PLANT FARMS

Lock Box 826 Kalamazoo 99, Mich.

HARDY NORTHERN-GROWN LILY BULBS.

New, rare, scarce and unusual as well as
standard varieties. Send for your free copy.
New wholesale list now ready.

J. HENDRIKS, Grower

Portage, Mich.

DAHLIA ROOTS.

We grow many acres of standard varieties.
Write today for wholesale price list.

PAYNE DAHLIA FARMS

Route 5 Kansas City 3, Kan.

Don't Be Late!

Mail advertising copy to reach

the American Nurseryman

Monday, two weeks before date of issue.

CAMELLIAS

Clean, vigorous, young stock from lath house.

6 to 8 ins. 8 to 12 ins.

Alba Plena \$0.30 \$0.40

Brilliant \$0.30 \$0.40

Chandler Elegans \$0.30 \$0.40

Glad de Nantes \$0.30 \$0.40

Hermes \$0.30 \$0.40

Pink Perfection \$0.30 \$0.40

Prof. Sargent \$0.30 \$0.40

Sarah Frost \$0.30 \$0.40

STEPHENS NURSERIES

Semmes, Ala.

CAMELLIA LINERS.

Many standard and rare varieties of Cam-
ellia liners at very attractive prices. Our
liners were well protected and they were not
injured by the recent cold. Flower buds of
our Kurume Azaleas are uninjured.

Write for our wholesale price list or visit us.

COTTAGE HILL NURSERY

T. Kiyono, Mgr.

Rt. 4, Box 130 Mobile, Ala.

CUTTING WOOD

HARDWOOD CUTTINGS.

From Hardy Northern-grown Shrubs and
Trees. Delivery now. From our own plantings
and blocks checked yearly for accuracy. Cut
7 inches.

	Per 1000
Aronia melanocarpa	4.00
Cornus paniculata	4.00
Sibirica	4.00
lutea (yellow bark)	4.00
amomum	4.00
Forsythia intermedia	5.00
primulina	4.00
spectabilis	3.00
Elder, Golden	6.00
Cutleaf	4.00
Red-berried	5.00
canadensis	5.00
Hydrangea P.G.	6.00
Hydrangea A.G.	6.00
Privet, Amur	3.00
Ibota	3.00
Honey suckle, Morrow	3.00
belia albidia	3.00
belia rosea	3.00
tat. rosea	4.00
koroikow	4.00
sabel	4.00
maacki	4.00
Diervilla trifida	4.00
Philadelphus grandiflorus	3.00
Bouquet Blanc	3.00
coronarius	3.00
Physocarpus opul. aureus	3.00
Sorbaria sorbifolia	3.00
Spiraea billardi	3.00
freobeli	3.00
thunbergi	3.00
vanhouttei	3.00
trichocarpa	3.00
Snowberry, White	3.00
Lilac, rothomagensis	6.00
Viburnum dentatum	4.00
Poplar, Lombardy	3.00
Willow, Niohe	3.00
Wisconsin	3.00
Golden	3.00
Pussy	3.00
Thuja pyramidalis	25.00
globosa	25.00
wareana	25.00

Packed free. Cash with order, please. De-
livery in good order guaranteed.

THE SCOTCH GROVE NURSERY

Scotch Grove, Iowa

EVERGREENS

LINING-OUT LIST.

We offer the following potted liners for
shipment to you in New Bird Neponset Paper
Pots at the slight added cost as per prices
in the first column.

Potted liners priced in the second column
will be packed by the ordinary method used
by most nurseries without the added protec-
tion of paper shipping pots.

Be-root liners and liners in Bird Vita-
Bands are also priced in the second column.

The 1000 rate applies on all orders; there-
fore please order in multiples of 25 or more.

	In Pots	Without Pots
Prices each per 1000		
Biota aurea nana, Berckmans		
2 1/2-in. pots	\$0.20	\$0.19
2 1/2-in. pots, extra-strong	.22 1/2	.21 1/2
Biota aurea nana globosa		
2 1/2-in. pots	.18	.17
Biota bonita		
2 1/2-in. pots, extra-strong	.18	.17
2 1/2-in. pots, extra-strong	.20	.19
Biota bakeri, Biota excelsa and Biota sibylli		
4 to 6 ins., liners	.10	.12
2 1/2-in. pots, extra-strong	.18	.17
2 1/2-in. pots, extra-strong	.20	.19
Cedrus deodora		
6 to 8 ins., liners	.19	.19
2 1/2-in. pots	.23	.22
2 1/2-in. pots	.25	.24

Note: Cedrus deodora is a scarce item. Due
to crop failure no fresh seeds will be avail-
able in 1951. Place your orders now while
still available.

	In Pots	Without Pots
Chamaecyparis lawsoniana allumi (Blue Lawson Cypress)		
2 1/2-in. pots	.19	.18
2 1/2-in. pots	.20	.19
Cunninghamia lanceolata blue		
2 1/2-in. pots	.25	.24
Italian Cypress, fastigiata		
2 1/2-in. pots	.25	.24
Juniperus chinensis pfitzeriana		
4 to 6 ins., liners	.12	.12
Juniperus chinensis pfitzeriana and Juniperus chinensis pfitzeriana compacta		
2 1/2-in. pots, extra-strong	.18	.17
2 1/2-in. pots, extra-strong	.20	.19
Juniperus chinensis pfitzeriana nana		
2 1/2-in. pots	.25	.24
Juniperus chinensis albo- variegata		
2 1/2-in. pots	.23 1/2	.22 1/2
Juniperus chinensis tortuosa		
6 to 8 ins., liners	.15	.15
2 1/2-in. pots	.18	.17
Juniperus chinensis sylvestris		
2 1/2-in. pots	.22 1/2	.21 1/2
2 1/2-in. pots	.25	.24

(Continued in next column.)

(Concluded from previous column.)

	In Paper Pots	Without Paper Pots
Juniperus chinensis viridifolia, often called Juniperus densa glauca		
2 1/2-in. pots	\$0.25	\$0.24
2 1/2-in. pots	.26	.25
Juniperus communis columnaris compacta and Juniperus communis kiyono		
4 to 6 ins., liners	.12	.12
2 1/2-in. pots	.16	.16
2 1/2-in. pots	.18	.17
Juniperus excelsa stricta		
4 to 6 ins., liners, TT	.17	.17
2 1/2-in. pots	.18	.17
Juniperus glauca hetzi		
2 1/2-in. pots	.18	.17
2 1/2-in. pots	.19	.19
Juniperus hibernica fastigiata		
2 1/2-in. pots	.18	.17
2 1/2-in. pots	.20	.19
Juniperus japonica procumbens		
2 1/2-in. pots	.19	.18
2 1/2-in. pots	.21	.20
Juniperus virginiana ketelerei		
2 1/2-in. pots	.25	.24
Taxus cuspidata		
2 1/2-in. pots	.18	.17
Taxus media andersoni		
2 1/2-in. pots	.18	.17
Taxus media hickii		
4 to 6 ins., liners	.12	.12
2 1/2-in. pots	.16	.16
2 1/2-in. pots	.18	.18
Thuja occidentalis pyramidalis (American Pyramidal Arborvitae)		
4 to 6 ins., liners	.16	.16
2 1/2-in. pots	.18	.17
Berberis sargentiana		
1 1/2 x 2 1/2-in. Vita-Bands	.15	.15
2 1/2-in. pots	.16	.16
2 1/2-in. pots	.18	.17
Buxus sempervirens (English Boxwood)		
3 to 4 ins., liners	.06	.06
4 to 6 ins., liners	.07 1/2	.07 1/2
1 1/2 x 2 1/2-in. Vita-Bands	.15	.15
Camellia sasanqua Maiden's Blush		
2 1/2-in. pots	.13	.12
Elaeagnus fruitlandi		
3 to 4 ins., liners	.12	.12
4 to 6 ins., liners	.15	.15
2 1/2-in. pots	.19	.18
Euonymus alatus		
4 to 6 ins., liners	.08	.08
2 1/2-in. pots	.13	.12
2 1/2-in. pots	.16	.17
2 1/2-in. pots	.20	.19
Ilex crenata convexa (bullata)		
1 1/2 x 1 1/2-in. Vita-Bands	.17	.17
2 1/2-in. pots	.21	.20
Ilex crenata rotundifolia		
2 1/2-in. pots	.16	.15
2 1/2-in. pots	.18	.17
Ilex cornuta burfordi		
2 1/2-in. pots	.15	.14
2 1/2-in. pots	.17	.16
Ligustrum lucidum compactum		
2 x 2 1/2-in. Vita-Bands	.12	.12
2 1/2-in. pots	.13	.12
2 x 3-in. Vita-Bands	.15	.15
Magnolia grandiflora		
2 1/2-in. pots	.18	.18
Nandina domestica		
1 1/2 x 2 1/2-in. Vita-Bands	.07	.07
2 1/2-in. pots	.09	.08
2 1/2-in. pots	.11	.10
Osmanthus aquifolium		
2 1/2-in. pots	.19	.18
2 1/2-in. pots	.21	.20
Photinia glabra		
2 1/2-in. pots	.20	.18
Photinia serrulata		
2 1/2-in. pots	.19	.18
2 1/2-in. pots	.21	.20
Pyracantha belli		
2 1/2-in. pots	.16	.15
2 x 2 1/2-in. Vita-Bands	.16	.15
2 1/2-in. pots	.18	.17
Viburnum tinus		
4 to 6 ins., liners	.06	.06
8 to 12 ins., liners	.07	.07
8 to 12 ins., grafting grade	.07	.07
Kerria japonica pleniflora		
6 to 8 ins., liners	.05	.05
Lonicera Flaming Beauty		
6 to 8 ins., liners	.16	.15
8 to 12 ins., liners	.18	.18
Spiraea Anthony Waterer		
4 to 6 ins., liners	.05	.05
1 1/2 x 2 1/2-in. Vita-Bands	.08	.08
Spiraea reevesiana flore-plena		
4 to 6 ins., liners	.08	.08
6 to 8 ins., liners	.10	.10
8 to 12 ins., liners	.12	.12
Weigela Eva Rathke		
4 to 6 ins., liners	.07	.07
2 1/2-in. pots	.10	.10

See our display ad illustrating liners in
this issue.

Special Notice: Items marked by asterisk
(*) for delivery Spring, 1951. All items not
so marked are ready for shipment now or
later to suit customer's requirements. (Prices
subject to change without notice.)

T. G. OWEN & SON, INC.

Columbus, Miss.

NORWAY SPRUCE.

Husky 3-year-old seedlings.
5 to 10 ins. \$3.50 per 100; \$30.00 per 1000.
April delivery. Cash with order, please.

CARROLL HILLS NURSERY

Ipswich, Mass.

EVERGREENS—Continued

EVERGREEN LINERS and CUTTINGS. POT-GROWN EVERGREEN LINERS. Each—Per 100 Per 1000			
Biota aurea nana, greenhouse-grown, ready May 1.00.20	\$0.18		
Juniperus virginiana burkii, 1-yr., 5 to 6 ins., own root	.27	.26	
Juniperus chinensis pfitzeriana, 1-yr., 5 to 6 ins.	.20	.18	
Juniperus hetzi glauca, 1-yr., 5 to 6 ins.	.20	.18	
Arborvitae, Pyramid, 1-yr., 4 to 6 ins.	.18	.16	
2-yr., 10 to 12 ins.	.27	.24	
Arborvitae, Globe Woodward, 1-yr., 4 to 5 ins.	.17	.18	
Arborvitae, American Dark Green, 2-yr., 4 to 5 ins.	.20	.18	
Taxus media hicksii, 2-yr., 5 to 7 ins.	.20	.18	
1-yr. beds, 5 to 6 ins.	.15	.14	
Taxus cuspidata, 2-yr., 6 to 7 ins., field-grown	.27	.25	
HEAVY ROOTED CUTTINGS. From flats, rooted outside in lath house.			
Each—Per 100 Per 1000			
Juniperus communis hibernica	\$.08	\$0.07	
Juniperus communis ashfordii	.08	.07	
Arborvitae, American Dark Green, Ready June 1	.09	.08	
Arborvitae, Pyramid, Ready June 1	.09	.08	
Arborvitae, Globe and Woodward, Ready June 1	.08	.07	
Euonymus alatus compactus	.07	.06	
Buxus sempervirens	.07	.06	
Taxus cuspidata	.10	.08	
Taxus media andersonii	.12	.10	
Taxus media hatfieldii	.12	.10	
Taxus media hicksii	.09	.08	
Taxus media No. 8, spreading	.12	.10	
2 per cent discount and free packing for cash with order.			

300 plants at 1000 rate.
MIAMI NURSERY CO.
Tipp City, Ohio
Member of American Association of Nurserymen and Ohio Nurserymen's Association.

ARBORVITAE, Per 25 100 1000			
American, 4 to 6 ins., X. \$3.75	\$13.50		
American, dark green nigra, 4 to 6 ins., X.	4.50	16.50	
3 to 4 ins., X.		12.00	\$100.00
Elegantissima, rooted cuttings		8.00	
Pyramidalis, rooted cuttings		8.00	75.00
4 to 6 ins., X.	4.50	16.50	
6 to 8 ins., X.	6.25	20.00	
Globose, rooted cuttings		8.00	75.00
4 to 6 ins., X.	4.50	16.50	
6 to 8 ins., X.	5.00	18.50	

BOXWOOD, Per 25 100 1000			
Old English Dwarf, rooted cuttings		6.00	45.00
3 to 4 ins., X.		12.00	100.00
4 to 5 ins., X.		15.00	125.00
5 to 7 ins., X.	4.50	16.50	140.00
Sempervirens, 1-yr. T.			
4 to 5 ins., X.	12.00	100.00	
Korean, 1-yr. T.			
4 to 5 ins., X.	12.00		

BARBERRY, Julian, Per 25 100 1000			
4 to 6 ins., X.	6.25	20.00	
5 to 8 ins., X.	7.50	27.50	

ILEX crenata (Jap. Holly), Per 25 100 1000			
6 to 8 ins., X.	4.50	16.50	
rooted cuttings		8.00	75.00

JUNIPERUS, Per 25 100 1000			
Andorra, rooted cuttings		8.00	75.00
4 to 6 ins., X.	4.50	16.50	
6 to 8 ins., X.	6.25	18.50	

Hetzi, rooted cuttings, Per 25 100 1000			
Hibernica (Irish), rooted cuttings		8.00	75.00
4 to 6 ins., X.	4.50	15.00	

Sabella (Savin), Per 25 100 1000			
rooted cuttings		8.00	75.00
4 to 6 ins., X.		16.50	

PINE, Mugo, 1-yr. T., Per 25 100 1000			
3 to 4 ins., X.		8.50	

PIERIS japonica, Per 25 100 1000			
6 to 8 ins., X.	7.50	25.00	

ESHAM'S NURSERIES
Frankford, Delaware

EVERGREEN SEEDLINGS.

Per 100 Per 1000			
Mugo Pine, 3-yr., 4 to 7 ins.	\$6.00	\$32.00	
Jap. Red Pine, 3-yr., 4 to 5 ins.	5.00	27.00	
Jap. Black Pine, 3-yr., 4 to 5 ins.	5.00	27.00	
Cuspidata Jap. Yew, 2-yr., 3 to 7 ins.	9.75	80.00	
Platte River Juniper, 2-yr., 8 to 12 ins.	8.00	40.00	
Oriental Arborvitae, 3-yr., 8 to 12 ins.	5.00	30.00	
Oriental Arborvitae, 3-yr., 10 to 20 ins.	8.00		
Lacebark Pine, 2-yr., 3 to 6 ins.	6.00		

NEURER'S EVERGREEN NURSERY
Barnesville, Pa.

10,000 Pfitzer and Hetzi Junipers, Each			
18 to 24 ins., light	\$2.75		
18 to 24 ins., heavy	3.25		
24 to 30 ins., heavy	3.75		
24 to 30 ins., heavy, B&B	4.25		
Euonymus alatus, heavy, B&B	2.25		
18 to 24 ins., heavy, B&B	2.50		
24 to 30 ins., heavy, B&B	2.50		

BRUENIG'S NURSERIES
Higginsville, Mo.

B&B EVERGREENS

HEAVILY SHEARED.

Nice Finished Stock.

Blue Meyer Juniper		Each	
15 to 18 ins.		\$2.00	
18 to 24 ins.		2.50	
Irish Juniper			
2 1/2 to 3 ft.		1.50	
3 to 3 1/2 ft.		2.00	
3 1/2 to 4 ft.		2.65	
Pfitzer Juniper			
18 to 24 ins.		2.90	
2 to 2 1/2 ft.		3.50	
Biota Aurea Nana			
15 to 18 ins.		1.50	
18 to 24 ins.		2.10	
Globe Arborvitae			
15 to 18 ins.		1.50	
18 to 24 ins.		1.75	
Dark Green American Arborvitae			
15 to 18 ins.		3.60	
Orientalia Arborvitae			
2 1/2 to 3 ft.		1.70	
3 to 3 1/2 ft.		2.10	
3 1/2 to 4 ft.		3.00	
Pyramidalis Arborvitae			
3 1/2 to 4 ft.		3.40	
4 to 4 1/2 ft.		3.90	
Retinospora			
15 to 18 ins.		1.25	
18 to 24 ins.		1.75	
Prices above are for 5 or more of same variety and size.			
Write for prices on other evergreens.			
Usually start digging around March 1.			
We invite you to inspect our stock and look over our nursery in general. Any time you are this way, stop in for a little chin session.			
J. C. BUNCH & SON			
3500 Hulman St.			
Terre Haute, Ind.			

LINING-OUT STOCK.

Per 100 Per 1000			
Scotch Pine, Riga, 2-0.	\$ 3.50	\$ 30.00	
Mugo Pine (Dwarf), 2-0.			
2 to 4 ins.	3.00	25.00	
Mugo Pine (Dwarf), 3-0.			
3 to 6 ins.	5.00	45.00	
Mugo Pine (Dwarf), 2-1.			
2 to 4 ins.	5.00	45.00	
Table Mountain Pine, 2-0.			
3 to 6 ins.	2.50	20.00	
Table Mountain Pine, 1-1.			
3 to 6 ins.	4.00	35.00	
Norway Spruce, 3-0, 3 to 6 ins.	3.50	27.50	
Norway Spruce, 2-1, 3 to 6 ins.	5.50	50.00	
Colorado Blue Spruce, 2-1.			
2 to 4 ins.	4.50	40.00	
White Spruce, 2-0, 3 to 6 ins.	3.00	25.00	
Black Hills Spruce, 3-0.			
2 to 4 ins.	3.00	27.50	
Black Hills Spruce, 3-1.			
2 to 6 ins.	5.00	45.00	
Black Hills Spruce, 2-2.			
3 to 6 ins.	6.00	65.00	
Black Spruce, 2-3, 8 to 18 ins.	12.00	110.00	
Oriental Arborvitae, 1-2.			
6 to 15 ins.	10.00	85.00	
Dwarf Oriental Arborvitae, 1-2.			
6 to 12 ins.	10.00	90.00	
Pyramidal Oriental Arborvitae, 1-2, 6 to 12 ins.	10.00	90.00	

For complete list write to
JOHN G. ZELENKA

Rt. 2, Box 293 Grand Haven, Mich.

EVERGREEN TRANSPLANT LINERS.

Taxus hicksii		Per 100	
2-yr., 12 to 18 ins.		\$30.00	
2-yr., 10 to 12 ins.		25.00	
2-yr., 8 to 10 ins.		22.00	
1-yr., 4 to 6 ins.		18.00	
Taxus Jeffrey's			
3-yr., 8 to 10 ins.		28.00	
2-yr., 6 to 8 ins.		25.00	
1-yr., 4 to 6 ins.		18.00	
Taxus Hill dwarf pyramidalis			
3-yr., 8 to 10 ins.		28.00	
2-yr., 6 to 8 ins.		25.00	
2-yr., 4 to 6 ins.		22.00	
Taxus wardii			
1-yr., 6 to 8 ins.		22.00	
4 to 6 ins.		18.00	
Arborvitae, Hill pyramidalis			
2-yr., 12 to 18 ins.		25.00	
1-yr., 6 to 8 ins.		18.00	
Juniperus stricta			
1-yr., 6 to 7 ins.		20.00	
1-yr., 8 to 10 ins.		25.00	
Write for quantity discount on over 100.			
No packing charge for cash with order.			

ARTLEY'S NURSERY
Moutourville, Pa.

JUNIPERS.

Pfitzer, Golden Pfitzer, Hetzi, Sabina Von Ehron, Sabina Tamariscifolia.		Per 100	
9 to 12 ins., TT, 2-yr., field-grown		\$ 40.00	
12 to 15 ins., TT, 2-yr., field-grown		50.00	
15 to 18 ins., TT, 2-yr., field-grown		70.00	
4 to 8 ins., potted, 1-yr. cuttings		20.00	
UPRIGHT TYPES: Scopulorum Moffetti, Colo. Green, Dew Drop, Pathfinder, Blue Heaven, Virg. Burkii.			
9 to 12 ins., TT, 2-yr., field-grown		60.00	
12 to 15 ins., TT, 2-yr., field-grown		90.00	
15 to 18 ins., TT, 2-yr., field-grown		120.00	
4 to 8 ins., potted, 1-yr. cuttings		35.00	
5 per cent discount on cash with order; or 25 per cent cash balance C.O.D. Bare root Junipers are fresh-dug, puddled, roots wrapped in damp moss; packing free.			

DAVIDSON NURSERY
Haastings, Nebr.

SEEDLINGS FOR SPRING.

Scotch Pine, 2 yrs., 4 to 8 ins.		Per 100	Per 1000
Scotch Pine, 2 yrs., 1 to 3 ins.		\$ 5.00	\$25.00
Austrian Pine, 2 yrs., 4 to 6 ins.		5.00	25.00
Austrian Pine, 2 yrs., 2 to 4 ins.		5.00	25.00
Austrian Pine, 2 yrs., 1 to 2 ins.		2.00	10.00
White Pine, 2 yrs., 4 to 8 ins.		4.00	20.00
White Pine, 2 yrs., 2 to 4 ins.		7.00	35.00
Norway Spruce, 2 yrs., 2 to 4 ins.		4.50	22.50
Norway Spruce, 3 yrs., 4 to 8 ins.		5.00	25.00
White Spruce, 2-yr., 2 to 4 ins.		5.00	25.00
White Spruce, 3 yrs., 4 to 8 ins.		8.00	40.00
Colorado Blue Spruce, 2 yrs., 2 to 4 ins.		5.00	25.00
Colorado Blue Spruce, 3 yrs., 3 to 7 ins.		8.50	42.50
American Red Pine, 3 yrs., 2 to 5 ins.		5.00	25.00
American Arborvitae, 3 yrs., 4 to 8 ins.		7.00	35.00

TRANSPLANTS.

Scotch Pine, 2-1, 3 to 8 ins.		Per 100	Per 1000
Scotch Pine, 2-1, 3 to 5 ins.		7.50	37.50
Austrian Pine, 2-1, 3 to 6 ins.		7.50	37.50
Norway Spruce, 2-1, 3 to 5 ins.		7.50	37.50
Arborvitae, 3-3, 10 to 18 ins.		35.00	
Cash, or 35 per cent deposit with order, balance C.O.D. 5 per cent discount on quantities of 25,000.			

SAM DIBLE NURSERY
Shelbota, Mo.

EVERGREEN CUTTINGS.

Rooted, Plant Bands and Bed Liners.

ROOTED. Each per 10 100 1000			
Arborvitae, pyramidal	\$0.10	\$0.09	\$0.08
Arborvitae, globe	.10	.09	.08
Juniperus pfitzeriana	.12	.11	.10
Juniper, Irish	.12	.11	.10
Taxus cuspidata, 6 to 10 ins.	.10	.09	.08
Taxus hicksii, 6 to 10 ins.	.10	.09	.08
Taxus capitata, 4 to 6 ins.	.15	.14	.12
Taxus capitata, 8 to 10 ins.	.25	.23	.20

PLANT BANDS.

Arborvitae, pyramidal			
Arborvitae, globe	.20	.18	.16
Juniperus pfitzeriana	.20	.18	.16
Juniperus pfitzeriana	.20	.18	.16
Taxus cuspidata, 6 to 10 ins.	.18	.16	.14
Taxus hicksii, 6 to 10 ins.	.18	.16	.14
Taxus capitata, 8 to 10 ins.	.35	.32	.28

1-YR. BED.

Arborvitae, pyramidal			
Arborvitae, globe	.20	.18	.16
Juniperus pfitzeriana	.20	.18	.16
Juniperus pfitzeriana	.20	.18	.16
Taxus cuspidata, 6 to 10 ins.	.18	.16	.14
Taxus hicksii, 6 to 10 ins.	.18	.16	.14
The Taxus capitata (leaders) is used only 300 at 1000 rate, no charge for packing.			

300 at 1000 rate, no charge for packing.

DRAKE'S NURSERIES

G4342 Branch Rd. Flint, Mich.

EVERGREEN LINERS.

Callistemon (Bottlebrush),		Per 100	
2 1/2-in. pots		\$12.50	

EVERGREEN SEEDLINGS.

All seedlings run of beds.

	Per 100	Per 1000
Pine, Austrian, 2-yr. sdgs., 3 to 5 ins.	\$3.50	\$25.00
Pine, Mugo, 2-yr. sdgs., 1 to 3 ins.	3.50	25.00
Pine, Ponderosa, 2-yr. sdgs., 2 to 5 ins.	3.50	25.00
Pine, Scotch, 2-yr. sdgs., 2 to 5 ins.	3.50	25.00
Spruce, Black Hills, 2-yr. sdgs., 1 to 2 ins.	3.50	25.00
Spruce, Colorado, 2-yr. sdgs., 1 to 3 ins.	3.50	25.00
Spruce, Norway, 2-yr. sdgs., 2 to 5 ins.	2.50	20.00
Spruce, White, 2-yr. sdgs., 2 to 4 ins.	2.50	20.00
Fir, Douglas, 2-yr. sdgs., 2 to 6 ins.	2.50	20.00

HEASLEY'S NURSERIES

Telephone Butler 46-3529

Prepost Rd. Butler, Pa.

EVERGREEN LINERS.

	Per 100	Per 1000
American Arborvitae, 8 to 12 ins., T.	\$25.00	\$225.00
Andorra Juniper, 7 to 10 ins., T.	17.00	150.00
Douglas Fir, 8 to 12 ins., T.	20.00	180.00
Hetzl Glauca Juniper, 12 to 15 ins., T.	25.00	225.00
Irish Juniper, 8 to 12 ins., T.	23.00	225.00
Irish Juniper, 12 to 15 ins., T.	25.00	225.00
Mugo Pine, 8 to 12 ins., T.	30.00	285.00
Mugo Pine, 12 to 15 ins., T.	25.00	225.00
Norway Spruce, 8 to 12 ins., T.	25.00	225.00
Pyramidal Arborvitae, 1 to 1 1/2 ft., TTT.	60.00	550.00
8 to 12 ins., T.	40.00	350.00
Pfitzer Juniper, 6 to 9 ins., T.	20.00	180.00
Savin Juniper, 6 to 9 ins., T.	15.00	135.00

These are high-quality transplants from the field. We are sure you will like them. Cash with order, free packing. Ask for our complete list. Member A.A.N. West Virginia's largest growers.

WHERRY'S NURSERIES

St. Marys, West Virginia

LINING-OUT STOCK.

	Per 100
Globe Arborvitae, 8 to 12 ins.	\$35.00
Pyramidal Arborvitae, 8 to 10 ins.	25.00
Pyramidal Arborvitae, 10 to 12 ins.	40.00
Balsam Fir, 8 to 10 ins.	12.00
Colo. Bl. Spruce, 6 to 8 ins.	20.00
Globe Arborvitae, 8 to 10 ins.	20.00
Andorra Juniper, 8 to 10 ins.	20.00
Mugo Pine, 2 to 5 ins.	12.00
1-yr. bed.	
Globe Arborvitae, 5 to 7 ins.	10.00
American Arborvitae, 4 to 7 ins.	6.00
Pyramidal Arborvitae, 5 to 7 ins.	15.00
White Spruce, 3 to 5 ins.	7.50
Colo. Bl. Spruce, 3 to 7 ins.	7.50
Mugo Pine, 2 to 4 ins.	7.50
Spreading Yew, 5 to 7 ins.	12.00
Upright Yew, 5 to 7 ins.	12.00

Prices of rooted cuttings on request.

Cash with order, packing free.

WESTFIELD NURSERY & FLORIST

Westfield, Wis.

ROOTED CUTTINGS.

	Per 100
Juniperus glauca hetzel	
Cut 8 to 12 ins.	\$10.00
Cut 12 to 15 ins.	20.00
Juniperus andorra, cut 6 to 8 ins.	8.00
Taxus hicksii, cut 8 to 12 ins.	10.00
Andersoni, cut 6 to 8 ins.	8.00
Cuspidata, cut 6 to 8 ins.	8.00
Cuspidata capitata (leader cuttings only) cut 8 to 12 ins.	12.00
Spring shipment. Cash with order, free packing. Express charges prepaid. Order now.	

EUROPEAN WHITE BIRCH.

	Per 100
Well developed, straight and nicely branched.	
2 ft.	\$8.00
3 ft.	15.00
4 ft.	25.00
5 ft.	40.00
March shipment only. Not prepaid.	

EDWARDS' EVERGREEN NURSERIES

West Lafayette, O.

JUNIPER GRAFTS.

	Per 100	Per 1000
For spring delivery, ready for field and cultivation.		
J. chin. pfitzeriana.	\$37.50	\$350.00
J. chin. pfitzeriana aurea.	40.00	375.00
J. chin. pfitzeriana armstrongii.	40.00	375.00
J. chin. pfitzeriana compacta.	40.00	375.00
J. chin. pfitzeriana green.	40.00	375.00
J. chin. pfitzeriana blue.	40.00	375.00
J. chin. pfitzeriana canariensis.	40.00	375.00
J. chin. pfitzeriana glauca.	40.00	375.00
J. chin. pfitzeriana purpurea.	40.00	375.00
J. chin. pfitzeriana viridis.	40.00	375.00

*Our new blue globosa.

First time on market.

Terms: Cash with order, packing free; 25 per cent deposit with order, packing at cost, balance when shipped.

ARROW WOOD NURSERY

Box 106 Warsaw, Ky.

FIELD-GROWN JUNIPERS.

8 to 8 ins., \$12.50 per 100.

8 to 12 ins., 17.50 per 100.

J. communis (Emelish)	
J. communis ashfordi	
J. communis cracovia (Polish)	
J. communis pfitzeriana (Improved Irish)	
J. communis hibernica (Irish)	
J. horizontalis plumosa (Andorra)	
J. sabinia	
J. sabinia tamaricifolia	
J. sabinia Von Ehrh.	
J. excelsa stricta (Greek)	
J. virginialis	

Abelia grandiflora, 8 to 12 ins. \$12.50

Euonymus patens, 6 to 8 ins. 10.00

Jasminum nudiflorum, 8 to 12 ins. 9.00

Viburnum tomentosum, 8 to 12 ins. 9.00

Cornus florida plena, 6 to 12 ins. 40.00

Cornus florida plena, 12 to 15 ins. 75.00

BYERS NURSERY CO.

Chase, Ala.

LINING-OUT STOCK.

HYBRID RHODODENDRONS.

Rooted cuttings from 3-in. pots.

Catawbiense Bourault, deep rose-lilac

Catawbiense Grandiflora, purplish-violet

English Roseum, bright rose-pink

Fastuosum Fl.-pl., dbl. mauve

Purity White, pure white

Roseum Elegans, rose-pink

Roseum Superbum, brilliant pink

All varieties \$6.50 Per 100

1-yr., 10 to 12 ins. 3-in. pots. 6.50

Ilex opaca (female).

own root, from 2 1/2-in. pots. 25.00

No charge for packing if cash with order.

SEPPERS NURSERY

North Delsea Drive Vineland, N. J.

LINING-OUT STOCK.

Buxus japonica \$0.10 8 to 12 to 15 ins. \$0.12 1/2

Ilex rotundifolia 10 12 1/2

Ilex opaca 10 12 1/2

Magnolia fuscata 10 12 1/2 \$0.15

Magnolia soulangeana 10 12 1/2

Pyracantha formosana 10 12 1/2

Camellia Sasanqua 15 17 1/2

Dbl. White 15 17 1/2

Rosea 15 17 1/2

Nigraheko 15 17 1/2

Mixed 15 17 1/2

STEPHENS NURSERIES

Semmes, Ala.

JUNIPER GRAFTS.

Canaerti, glauca, Burk, Keteleeri, Hetzel,

Smith and Pfitzeriana on Virginiana under-

stock. Price, \$40.00 per 100, or \$37.50 per 100

at the 1000 rate. 250 take the 1000 rate.

Terms: All cash with order earns free

packing, or one-fourth cash and balance be-

fore shipping date, plus packing charges at

cost.

We invite comparison with grafts of any

other company. Remember, when better

grafts are made, Crume will make them.

We are never able to supply our full demand.

Be wise and early, for the early bird catches

the worm.

T. C. CRUME NURSERY & LDSC. CO.

Highway 42 Florence, Ky.

ARBORVITAE.

Heaviest 2 1/2-in. pot-grown lath house Ar-

borvitae we have ever offered. Average 8 to

10 ins. high. For profits, plant confers that

don't freeze. 50,000 available as follows:

Berkmans Golden. Per 100 Per 1000

extra-heavy \$20.00 \$180.00

Dwarf Bonita, extra-heavy 20.00 180.00

Excelsa, extra-heavy 20.00 180.00

Blue Spire, extra-heavy 20.00 180.00

BRADSHAW'S NURSERY

League City, Tex.

LINING-OUT STOCK.

Juniper, Von Ehrh, 2 1/2-in. pots. Per 100

9 to 12 ins. \$30.00

Juniper, Andorra, 2 1/2-in. pots. 20.00

6 to 8 ins. 20.00

Above potted liners are now growing in

greenhouse. Shipment May 1 to 15.

Juniperus pfitzeriana, XX, field.

8 to 12 ins. 40.00

Cash with order, packing free.

DAMASCUS NURSERIES

Box 138 Damascus, Ohio

LINERS—TWICE TRANSPLANTED.

Taxus, spreading, 10 to 15 ins., 4-yr. Each

Taxus nana brevif., 8 to 12 ins., 4-yr. \$0.45

Above stock pruned to sizes indicated

Tauga canadensis, 12 to 15 ins., 6-yr. .30

Tauga canadensis, 15 to 18 ins., 6-yr. .40

Minimum: Lots of 25. 100 assorted your

choice, 10 per cent discount. 250 assorted, 15

per cent discount.

Cash, please. F.O.B. Packing free.

MOUNTAINVILLE FOREST NURSERIES

Lebanon, N. J.

2 1/2-in. POTTED TAXUS LINERS.

Over 2 years old, 6 to 8 ins. tall.

Taxus cuspidata, spreading. \$20.00

Taxus capitata, upright. 20.00

Packing free. Cash, please.

SINGER GARDENS, Stamping Ground, Ky.

LINING-OUT STOCK.

1-yr. bedded.

	Per 100	Per 1000
Taxus hicksii	\$15.00	\$125.00
Taxus cuspidata	15.00	125.00
Taxus hatfieldi	17.50	150.00
Taxus brevifolia	20.00	200.00
Tauga canadensis, 2-yr. tr., 4 to 6 ins.	7.00	60.00
3-yr. tr., 6 to 9 ins.	11.00	100.00
4-yr. tr., 9 to 12 ins.	16.00	150.00

Complete list of liners on request.

VERKADE'S NURSERIES

Wayne, N. J.

ROOTED CUTTINGS.

Taxus cuspidata, 6 to 8 ins. \$10.00

Taxus capitata, 6 to 8 ins. 10.00

Weller's Boxwood, 6 to 8 ins. 10.00

Bar Harbor Juniper, 6 to 8 ins. 10.00

Taxus cap. intermedia, 6 to 8 ins. 10.00

Euonymus patens, 6 to 8 ins. 10.00

Euonymus kowalski, 6 to 8 ins. 10.00

Euonymus coloratus, 6 to 8 ins. 10.00

These are well rooted, over 1 year old.

Shipped postpaid. Cash, please.

SINGER GARDENS, Stamping Ground, Ky.

LINING-OUT STOCK.

Taxus cuspidata, brevifolia, intermedia,

hicksii, Thuja globosa, pyramidalis, nigra;

Retinospora plumosa aurea; Pyracantha la-

landi, rogersiana, 1-yr., bedded, \$15.00 per

100; \$125.00 per 1000. Buxus suffruticosa,

2-yr., 4 to 5 ins., for edging, \$10.00 per 100.

Hardy Azaleas in large variety. Berberis

thunbergii, 6 to 9 ins., \$30.00 per 1000. Write

for list of grafted and larger liners.

DEERFIELD NURSERIES, Deerfield, N. J.

EVERGREEN PLANT MATERIAL.

ADVANCED LINERS in Azalea, Cornus,

Cotoneaster, Ilex, Juniperus, Kalmia, Leu-

cothoe, Pieris, Rhododendron, Taxus, Thuja,

Tauga, Viburnum.

Finished Trees in Colorado Blue Spruce.

All Certified for Western Shipment.

Write for Wholesale Price List.

H. W. WEBER EVERGREEN NURSERY

16 Summer St. Weston 93, Mass.

Taxus cusp. capitata, 8 to 12 ins. Per 100

2-yr., T. \$45.00

Taxus cuspidata, 8 to 12 ins., 2-yr., T 35.00

Taxus cusp. browni, 8 to 12 ins., 2-yr., T 40.00

Taxus media hicksii, 8 to 12 ins., 2-yr., T 35.00

Taxus media hicksii, 12 to 15 ins., 4-yr., TT 45.00

FRED F. STROHL

1404 N. Anthony Blvd. Fort Wayne, Ind.

POTTED LINERS—Ready for field or beds.

Buxus sempervirens and suffruticosa, 15c.

Gardenia fortunei, 12 1/2c. Ilex burfordii, 3-in.

Juniperus, Andorra, communis, chin. stricta,

pfitzeriana, sabinia, sylvestris, von Ehrh, 15c.

Nandina, 10c. Thuja, bakeri, Bonita, 18c.

BIRMINGHAM NURSERIES

Birmingham, Ala.

NATIVE WILD FLOWERING PLANTS.

Rhododendrons, Azaleas, Kalmia, Leucothoe

and Tauga canadensis. Evergreens, perennials,

shrubs, trees, orchids, ferns and vines.

Send for wholesale price list.

THE THREE LAURELS

Marshall, N. C.

2000 ANDORRA JUNIPER.

Heavily trimmed, good color.

Each per 100

18 to 24 ins. B&B \$1.50

2 to 2 1/2 ft. B&B 2.00

MT. HOLLY NURSERIES

E. Garden St. Mt. Holly, N. J.

HYBRID RHODODENDRONS.

Grown from grafts, cuttings and layers.

All leading varieties offered in 1, 2 and

3-year plants with buds. Complete list sent

on request.

SEPPERS NURSERY

North Delsea Drive Vineland, N. J.

We are importing from Holland in March

Rhododendron, Hybrids, grafted named var-

ieties, 1-year field-grown, 75c each. 3-year,

with buds, 12 to 15 ins., \$2.00 each.

VERKADE'S NURSERIES

Wayne, N. J.

Hardy Western Red Cedar Seedlings.

Per 100 Per 1000

2 to 4

FRUIT and NUT TREES

PEAR, 2 and 3-YEAR.

	Each
250 Kieffer, 11/16-in. and up.....	\$0.35
250 Kieffer, 9/16 to 11/16-in.....	.30
20 Kieffer, 7/16 to 9/16-in.....	.25
20 Garber, 9/16 to 11/16-in.....	.30
20 Garber, 7/16 to 9/16-in.....	.25
20 Bartlett, 9/16 to 11/16-in.....	.35
20 Bartlett, 7/16 to 9/16-in.....	.30
20 Bartlett, 5/16 to 7/16-in.....	.25
SHRUBS, 2 and 3-year.	
30 Forsythia, 3-yr., 4 to 5 ft., hvy.....	.35
30 Forsythia, 2-yr., 3 to 4 ft., hvy.....	.25
30 Forsythia, 2-yr., 2 to 3 ft., hvy.....	.20
50 Weigela, pink, 3-yr., 4 to 5 ft., hvy.....	.35
50 Weigela, pink, 2-yr., 3 to 4 ft., hvy.....	.30
20 Japanese Quince, orange, 2 to 3 ft., clps.....	.20
20 Bittersweet, 3-yr., 3 to 5 ft., hvy.....	.30
20 Bittersweet, 2-yr., 2 to 4 ft., hvy.....	.25
Tied 10 to bunch; minimum order, 30 trees.	
Packed free if cash in full with order.	

BLAN NURSERIES

Station B, Box 56 Fort Smith, Ark.

A few thousand 3-year-old Apple, Jonathan, Double Red Jonathan, Yellow Delicious, Red Delicious, York, Turkey, Wealthy, Rome Beauty, Double Red Rome Beauty, Grimes, 11/16-in., 35¢; 1 to 1 1/4-in., 75¢; 1 1/4 to 1 1/2-in., \$1.15 each in 100 lots.

5000 2-year Apple. Leading varieties, 5/16-in., 10¢; 7/16-in., 15¢; 9/16-in., 22 1/2¢ ea. A few hundred Pear: Seckel, Duchess, Bartlett—1-in., 55¢; 1 1/4-in., \$1.25 each in 100 lots.

500 Hansen Dwarf Cherry, 3-yr., heavy, 3 to 4 ft., 30¢; 4 to 5 ft., 60¢ each in 100 lots. 1000 American Ash, 1 1/2 to 2-in., \$1.50; 2 to 2 1/2-in., \$2.25 each.

EGYPTIAN NURSERY & LANDSCAPE CO., Farina, Ill.

LOOK!

SURPLUS 2-YR. APPLE.

Graded to A. N. Standards.

Now booking for Spring delivery at these attractive low prices:

	Each
9/16-in. cal., 4 to 5 ft.....	\$0.20
11/16-in. cal., 5 to 6 ft.....	.25
1 1/4-in. cal. and up.....	.35

Will take limited contracts for growing peach, June buds or dormant buds, for 1951 and 1952 deliveries. Write for price list on available stock.

PACK TRUE-TO-NAME NURSERY CO.

Phone 82-Y

McMinnville, Tenn.

FLOWERING CRAB APPLES, Limited numbers of Adstringens, Atrosanguinea, Aldenhamensis, Charlotte, Dolso, Eley, Floribunda, Hops, Bechtel, Lemoine, Micromalus, Mt. Arbor, Parkman, Redfield, Redford, Red Silver, Sargent, Scheidecker, Young America, Zumi Calocarpa, Br. 18 to 24 ins., 40¢; 2 to 3 ft., 55¢; 3 to 4 ft., 70¢; 4 to 5 ft., 90¢; 5 to 6 ft., \$1.00. White priced same as branched of second smaller size.

SIMPSON ORCHARD CO., Vincennes, Ind.

Box 88,

ADVANCE NOTICE.

GRAFTED CHINESE CHESTNUT TREES

We have a fine lot of this year's grafted Chinese Chestnut trees, best varieties. Will be ready for retailers to take over fall, 1951.

SUNNY RIDGE NURSERY

Swarthmore, Pennsylvania

PECANS.

Stuart, Mahan, Success, Moneymaker, Moore, Burkett, Schley, Western Schley and other popular and profitable catalog items. Thomas Black and Willson Wonder English Walnuts, Eureka and Tanenashi Persimmons. Write for advanced trade list.

Box 867-C ARP NURSERY CO., Tyler, Texas

CHINESE CHESTNUTS, U.S.D.A. Stock.

2-year seedlings.	Prices each per 10	100	1000
15 to 18 ins.....	\$0.30	\$0.25	\$0.20
20 to 24 ins.....	.35	.30	.25
26 to 36 ins.....	.45	.40	.35
38 to 48 ins.....	.65	.60	.50

P. F. BARRINGER, Loachapoka, Ala.

2-YEAR SWEET CHERRY

On Mazzard roots, 11/16-in. and 1-in. and up.

Let us quote on your requirements.

ENTERPRISE NURSERIES

R. D. 1 Wrightsville, Pa.

Peach, Plum, Apricot, Fig, Persimmon.

Pecan, in fact anything you might need.

Write for our price list.

FITZGERALD'S NURSERY

Stephenville, Texas

GRAPEVINES

Concord and Fredonia, \$4.00 per 1000. F.O.B. here. Tied with wire, 100 to bunch. Guaranteed true-to-name. Cut from our young, thrifty vineyard by experienced workmen.

IDEAL FRUIT FARM

Stillwell, Okla.

Twenty of the best varieties of grapes. Lowest wholesale prices on CONCORD, NIAGARA, FREDONIA. List includes fine table varieties PORTLAND, CACO, SHERIDAN. Unusual kinds, such as GOLDEN MUSCAT and CONCORD SEEDLESS.

Write for prices along with complete list of berries.

CONGDON'S WHOLESALE NURSERY

North Collins, N. Y.

WHITE SCUPPERNONG GRAPE.

	Per 10	Per 100
1-year, layer vines.....	\$2.50	\$15.00
2-year, staked vines.....	3.00	25.00
3-year, staked vines.....	4.00	35.00

Male vines, same prices.

Quick shipment; carefully packed.

STOVALL NURSERY, Leakeville, Miss.

All popular varieties of grapes in both 2-1 and 1-1. Currants and berry plants also.

FOSTER NURSERY CO., Inc., Fredonia, N. Y.

GROUND COVERS

Vinca Minor, Periwinkle, Myrtle.

5 to 30-cane clumps, individually made up.

3-yr. old or more. Fresh-dug, purple and white bloom, the finest ground cover. \$40.00 per 1000. Pachysandra 1 to 2 yr. old, \$50.00 per 1000.

2 per cent cash discount with order.

H. C. WAUGH

737 Greene St. Marietta, Ohio

PACHYSANDRA TERMINALIS.

Strong, 1-yr., field-grown, \$65.00 per 1000.

HILLCREST GREENHOUSES, Franklin, Pa.

HARDY PLANTS

HARDY PERENNIALS—

NEW, BETTER AND IMPROVED STRAINS.

Per 12 Per 100

ASTER LITTLE RED BOY.

Compact mound of red, pots.....\$3.50 \$20.00

ASTER PLENTY, Large, lovely

soft blue.....3.50 20.00

BUDDLEIA WHITE CLOUD.

Compact, pure white, pots.....3.75 22.50

CARNATION FROSTY, Very large

frilly white, pots.....4.00 25.00

CHRYSANTHEMUM MAXIMUM

MAJESTIC, Excellent huge

single.....3.50 20.00

DELPHINIUM LYONDEL GIANT

HYBRIDS, mixed.....4.00 25.00

DIANTHUS JUNE CARMINE.

Double carmine, pots.....3.50 20.00

DIANTHUS PINK PRINCESS.

Double salmon, pots.....3.50 20.00

DIANTHUS WALLACE RED.

Fine red, pots.....3.00 18.00

HEUCHERA PINK DELIGHT.

Best pink.....3.00 18.00

MYOSOTIS PINK BEAUTY.

Pink perennials forget-me-nots, pots.....3.00 18.00

OENOTHERA ILLUMINATION.

True stock, bright yellow, pots 3.75 22.50

POLEMONIUM BLUE PEARL.

New, baby-blue.....3.00 18.00

POLYANTHUS COLOSSAL STRAIN

MIXED, Large florists, pots.....3.50 20.00

PYRETHRUM ROSE MIST, Lovely

rose-carmine, created.....4.50 30.00

STOKESIA BLUE MOON, Immense

light blue, pots.....3.00 18.00

STOKESIA SILVER MOON.

Identical to above, but silvery

white, pots.....3.50 20.00

VERONICA BLUE PETER.

Deep navy-blue.....3.00 18.00

Quality plants—Strong roots—Field-grown

unless otherwise stated, 25 to 100 rate. No

packing charge if cash with order.

CORLISS BROS., Inc., NURSERIES

Reynard St. Gloucester, Mass.

The following items are 2-yr., field-grown,

transplanted stock.

Per 100

ACONITUM wilsoni, Mid-blue, large-

flowering.....\$12.00

AQUILEGIA, Mrs. Scott Elliott. The

blooms are of large size and spurs

very long. The colors range through

shades of lavender, mauve, blue, pur-

ple, white, cream, yellow, pink, red,

etc.....8.00

ALYSSUM Saxatile compactum (Gold

Dust), Golden-yellow, 12 ins. Blooms

in spring.....8.00

CHELONE herbacea.....10.00

DIANTHUS Spring Beauty, Double,

giant-flowered, carnationlike in form

and size and with a beautiful color

range. Very fragrant.....8.00

GAILLARDIA Burgundy, Self-colored,

wine-rose, 2 1/2 ins. in diameter, on

long stiff stems, from June until fall.

Comes 60 to 70 per cent true. 30 ins.

Large, blooming size 1-yr. sdgs.....6.00

LYCHNIS Arkwright Ruby.....12.00

PHLOX Hardy Thor.....12.00

PLATYCODON, Dark Blue, Dwarf,

16 ins.....12.00

ASTILBE rosea, Very good perennial,

\$2.00 per doz.

Cash with order, please. Trade list on re-

quest. Use your letterhead in inquiring for

prices or trade list.

J. J. NIGARD NURSERY

Herbater, Wis.

EXTRA-STRONG, FIELD-GROWN PLANTS

Grown by New England's Largest

Perennial Grower.

These plants are in cold storage and may

be shipped any time.

Per 10 Per 100

ANEMONE Whirlwind, Extra-

strong, wonderful for propaga-

tion.....\$2.75 \$20.00

ASTILBE Fanal.

Large 2-yr. plants for forcing.....5.00 45.00

Strong 1-yr. plants.....3.50 30.00

ASTILBE Gladstone.

Forcing size.....6.00 45.00

Strong 1-yr. plants.....3.00 25.00

DICENTRA Sweetheart, pure white.

Rooted Cuttings.....2.50 12.00

It will pay you to grow some; this item is

very much in demand and scarce on the

market.

PHLOX

1000 extra-nice, field-grown phlox, fine for

propagation or landscaping.

Aetna, Bright Eyes, Daily Sketch, Eva

Forester, F. A. Von Matner, Hauptmann

Kohl, July Glow, Mt. Hood, World Peace,

Prime Minister, Rheinlander, R. P. Struthers,

Pinkett.

The following plants are still in the cold

but short in supply.

Per 10 Per 100

DORONICUM caucasicum.....\$2.50 \$20.00

STOKESIA Blue Moon.....2.00 15.00

TRITOMA Golden Scepter.....2.50 20.00

TRITOMA Pfitzeri.....1.50 12.00

TRITOMA Primrose Beauty.....2.00 15.00

TRITOMA White Fairy.....2.50 20.00

Send for complete price list.

Many other desirable items.

VITNER'S GARDENS

P. O. Box 216, Sta. A, Manchester, Conn.

3 GREAT NEW

HARDY SUMMER-FLOWERING MUMS

(Corliss Originations.)

GENERAL MARSHALL, Rich harmony of

deep old rose, purple and gold.

GENERAL MACARTHUR, Glowing copper-

red.

GENERAL BRADLEY, Lovely apricot, as-

shell-pink and buff.

As STALWART and MERITORIOUS as the

FAMOUS GENERALS themselves.

Large, double blooms from August to hard

freeses. Nice long stems for cutting; rich

hedge. Extremely hardy, compact, bushy, vi-

gorous plants, 2 1/2 to 3 ft.

CLEAN, STRONG ROOTED CUTTINGS

\$3.00 per 100.

STRONG POT PLANTS.

\$6.00 per doz.; \$40.00 per 100.

Cuttings ready after March 1 (no orders

less than 25 of a kind). Plants ready after

April 1 (no orders less than 12 of a kind).

25 at 10¢ rate. No packing charge if cash

with order.

Write for list of other hardy Mums.

CORLISS BROS., Inc., NURSERIES

Gloucester, Mass.

HARDY CHRYSANTHEMUMS—Ann, All-

pink, Betty, Cerise, Caliph, Daydream, Em-

ber, Burgundy, Alabaster, Allen Felten,

Bridesmaid, Coral Seas, Challenger, Cour-

ageous, Dahlmum, Egypt, Early Wonder,

Crimson Buttercup, Ethel, Bonfire, Border

White, Inspiration, Glacier, Lavender Lassie,

Heatherbloom, Erna Linda, Mt. Ranier,

Maiden Blush, Geronimo, My Lady, Muriel,

Jean Harlow, Harbinger, Little Eskimo, Mi-

nona, Major, Omaha, Olive Longland, Red

Velvet, Sunape, Polar Ice, Red Hussar, Rose

Mandel, Santa Claus, Summer Sunset, The

Shelk, Trigo, Tampico, Wm. Longland, Terry

Charm, Magenta, Yellow, White, Rose, Or-

chid Spoona. Field plants, \$15.00 per 100. All

other varieties.

HARDY PHLOX — Bridesmaid, Colonial

Rose, Prime Minister, Eva Forester, Gen.

Petain, L'Esperance, \$10.00 per 100. Surplus

stock 400 varieties Iris, 5¢ each. Minimum

order, \$3.00, not less than 10 of a kind.

HILLVIEW GARDENS, Fort Madison, Iowa.

BLEEDING HEARTS.

Undivided field-grown clumps.

Dicentra spectabilis.

Each

Per

Per

Doz.

100

1000

2-eye, mail-order size.....\$15.00 \$150.00

3 to 5-eye mail-order size.....\$3.50 23.00

Regular, 3 to 5-eye.....4.00 32.00

Large, selected, 3 to 5-eye.....5.00 35.00

Forcing size, 5 to 8-eye.....6.00 40.00

Mammoth, 8 eyes and up.....7.00 50.00

Dicentra Eximia.

Named Phlox, named Delphinium. Trollius. Father Read Shasta Daisy. Thalictrum aquilegifolium. 20c each.
Red Carnation, Coral Bells, Armeria, Geum, Trillium, Gaillardia, Day Lily, Lupine, Columbine, Pyrethrum, 174c each.
Primrose polyantha and Jullia hybrids, Wanda and Lodge, and cashimiliana, 15c each.

170 varieties bearded Iris at nursery. Rhododendron hybrids, 5c to \$2.00; Acuba Laurel, \$1.00 and \$1.50; Azalea, 50c to \$1.50; Andromeda, \$1.00 to \$1.50; Skimmia, \$1.00 to \$1.50; Kalmia, \$2.00; Mediterranean Heather, 1 ft., 75c.

PORTLAND AVENUE NURSERY
1409 E. 59th & Portland Ave., Tacoma, Wash.

TWO HUNDRED THOUSAND DELPHINIUMS.

We have the nicest block of 1-year delphiniums we ever raised. They are extra-large plants and not lining-out seedlings. Grown from the finest seeds. This strain is practically 100 per cent double.

Per 100 Per 1000
Belladonna, Bellamosum \$6.00 \$45.00
Gold Medal, Pac. Hyb. 6.00 50.00
Black Knight, Galahad, Guinevere,
Blue Jay and Summer Skies 7.00 60.00

VITTNER'S GARDENS
P. O. Box 216, Sta. A, Manchester, Conn.

SPECIAL.
We have 10,000 Sir Galahad double Delphiniums, white with white eye, seeds sown in August, 1948, now in cold storage. Can be shipped any time.

\$2.50 for 25, \$5.00 for 50; \$10.00 per 100. 5 per cent discount on lots of 250 or more. Our new catalog listing 150 other varieties of plants is just off the press. Send for one.

RICHARDS GARDENS
"Old Homestead Brand"
Box 63 Plainwell, Mich.

LYTHRUM MORDEN'S PINK.

Transplants from field beds.

Early spring shipment. Per 100 Per 1000
Aug. 1950, transplants \$ 8.00 \$ 75.00
July, 1950, transplants 9.00 85.00
June, 1950, transplants 10.00 95.00
One-year, field plants 15.00 140.00

Send for trade list on perennials.

PLANE VIEW NURSERY
Newport, R. I.

PINK SACHET.

Introducing a new Old-Fashion Pink. Large (2-inch) single, pink flowers with maroon center. Fragrant, hardy, with good foliage. Excellent for cutting. 10-inch stems.

Strong rooted cuttings..... Doz. 100
\$4.00 \$35.00

PLANE VIEW NURSERY, Newport, R. I.

HARDY CHRYSANTHEMUM CUTTINGS.

It is time to think of Hardy Chrysanthemum cuttings for spring delivery. A complete list of the best varieties is now available. Request a copy on your business stationery, please.

FRED C. GLOECKNER & CO., Inc.
15 East 26th St. New York 10, N. Y.

PERENNIALS.

New and Standard Kinds. A most modern and complete selection. New Wholesale List now ready. Send for your Free Copy Now.

CARROLL GARDENS
Box 16 Westminster, Md.

ARONIA ARBUTIFOLIA brilliantissima.

Per 100 Per 1000
1-yr. edgls., 4 to 6 ins. \$5.00 \$40.00
1-yr. edgls., 6 to 8 ins. 6.00 50.00

PLANE VIEW NURSERY
Newport, R. I.

BLEEDING HEARTS.

Per 100
Dienentra Spectabilis, 3 to 5 \$25.00
Dienentra Spectabilis, 5 to 8 35.00
Dienentra Eximia, 3 to 5 15.00
Dienentra Eximia, 5 to 8 and up 20.00

J. HENDRIKS, GROWER, PORTAGE, MICH.

PHLOXES.

\$9.00 per 100; \$80.00 per 1000.

Please write for list.

GULDEMONT NURSERIES
Galesburg, Mich.

America's Best Source for Hardy Plants is

THE WAYSIDE GARDENS
Mentor, Ohio

Write for Trade List.

BLEEDING HEARTS.

Each
Dienentra Spectabilis, 3 to 5 \$2.25
Dienentra Spectabilis, 5 to 8 3.50

Well developed, field-grown roots.

CASHAR W. EVANS
Selbyville, Dela.

PHLOX.

If interested in phlox and other perennials, write for price list.

HENRY LE POIRE, Rt. 2, Zealand, Mich.

Panicles, perennials and rock plants in wide variety. Send for catalog.

PITZONKA'S PANSY FARM
Bristol, Pa.

HARDY FERNS.

\$7.00 per 100. Ostrich, Clayton, Lady and Maidenhair. STRAND NURSERY CO., Taylors Falls, Minn.

The Trade's Buying Guide—The American Nurseryman Ads.

HOLLY

ILEX DECIDUA.

Deciduous Holly bears masses of red berries that hang all winter. Hardy, transplants well, good retail seller. 1-yr. seedlings, 6 to 12 in., 15c ea.; 4 to 6 in., 74c ea. Older demonstration plant free with 300 No. 1 or 500 No. 2.

Red Yucca (Hesperaloe parviflora), blooms all summer. 1-yr. seedlings, 10c ea.
NOBLE NURSERY
Noble, Okla.

AMERICAN HOLLY (Ilex Opaca).

Linera. Specimens to 16 ft. Send for free booklet.

EARLE DILATUSH, Holly Specialist
Rt. 26 (near Trenton), Robbinsville, N. J.

IVIES

IVIES—Hardy English, both large and small-leaved; strong 2-in., \$3.00 per 100, \$75.00 per 1000; rooted cuttings, \$2.50 per 100, \$22.50 per 1000. Hahn's, 2-in., sc. Baltica, 2-in., 10c.

JACOB SCHULZ
831 Cherokee Rd., Louisville 4, Ky.

ROSEBUSHES

CENTRAL PENNSYLVANIA GROWN ROSES.

Terms and conditions of sale: Cash with order.

STANDARD ROSES.

No. 1 grade, 50; No. 1 1/2 grade, 40c each.

Gironi, Editor McFarland
Betty Upchurch, Edith Nellie Perkins
Condessa de Santiago, K. A. Viktoria
Sœur Therese, Pedralbes
Poinsettia, Floradora
Red Radiance, Red Ripples
McGregary's Scarlet, Paul's Scarlet Climber

Patented Roses. Prices each: 1 to 10 to 20 to 9 19 249

Peace, retails \$2.00 each. No. 1 \$1.25 \$1.10 \$1.00
No. 1 1/290 .80

Golden Anniversary, retails \$2.00 each. No. 1 1.25 1.10 1.00
No. 1 1/290 .80

Mme. Henri Guillot, retails \$1.50 each. No. 1 1.00 .90 .75
No. 1 1/272 .60

Blanche Mallerin, retails \$1.50 each. No. 1 1.00 .90 .75
No. 1 1/272 .60

Grand Duchess Charlotte, retails \$1.50 each. No. 1 1.00 .90 .75
No. 1 1/272 .60

Good News, retails \$1.50 each. No. 1 1.00 .90 .75
No. 1 1/272 .60

Mme. Cochet-Cochet, retails \$1.50 each. No. 1 1.00 .90 .75
No. 1 1/272 .60

Angel's Mateu, retails \$1.50 each. No. 1 1.00 .90 .75
No. 1 1/272 .60

Anna Marie, retails \$1.50 each. No. 1 1.00 .90 .75
No. 1 1/272 .60

BROWNELL SUB-ZERO HYBRID TEAS. Prices: Retail, \$1.75 each, 3 for \$5.00, \$15.00 per doz.; Wholesale, No. 1, 85c each.

Curly Pink, Lily Pons
No. 112, unnamed, Anne Vanderbilt
V for Victory, Red Duchesse
Shades of Autumn, Pink Princess
Golden Climber

Ready for immediate shipment.

SHADE'S NURSERY
707 Orchard St. Harrisburg, Pa.

ROSES.

First-class Stock Now Available!!!

Radiance, Golden Charm
Red Radiance, President Hoover
Etoile de Hollande, Paul's Scarlet
Tallman, New Dawn

No. 1 40c ea.
No. 1 1/2 30c ea.
No. 2 23c ea.

Write now for reservations. Stock is limited.

ROSEMONT NURSERIES
Tyler, Tex.

ROSES.

Pink Radiance, Red Radiance, Katharina
Zelmet (white polyantha), Paul's Scarlet Cl.
F. K. Druschki (also called White Am.
Beauty and Snow Queen).

Prices: No. 1 Grade, 55c each.
No. 1 1/2 Grade, 45c each.

Usual terms and conditions.

Immediate shipment. Cash, please.

OZARKS PLANT FARMS, Inc.
A.A.N. Mbr. Springfield, Mo.

SEEDS

MAHONIA AQUIFOLIUM SEEDS.

We are not affected by Plant Quarantine No. 37 covering this item. Please mail sample and quote price on 25 pounds (more or less) of these seeds.

TRAUERNICHT NURSERY CO.
400 N. Sylvania Ave. Fort Worth 11, Tex.

SEEDS.

Popular seed items for growers of ornamentals.

Per 1/4 lb. Per lb.

Arborvitae, American \$1.75 \$ 5.00
Giant (oleacea) 2.00 5.50

Cypress, Bald (taxodium)35 1.00
Hinoki 1.00 2.75

Italian Pyramidal35 .90
Spiraea Spreading35 .95

Monterey (macrocarpa) 1.10 2.00
Sawara 1.35 3.75

Fir, Balsam 1.10 3.00
Douglas (Pseudotsuga), fast-growing green Coast strain, 3.30 9.25

Douglas (Pseudotsuga), hardy interior (Christmas tree) strain 2.90 8.00

Juniper, Chinese (chinensis) 1.40 4.00
Red Cedar (virginiana), 1.70 4.75

Red Cedar (virginiana), southern 1.20 3.25
Western Red Cedar (scopulorum), dainty-leaved blue type, most excellent grade of seed, 2.15 6.00

Larch, Japanese 1.85 5.25
Pine, Austrian90 2.50

Banks 1.65 4.50
Himalayan (Musho), dwarf, .55 1.80

Siberian (baicalica) 1.40 4.00
Pinon90 2.50

Red (resinosa) 7.50 21.50
Scotch, long-needed, fast grower, green 1.60 4.50

Scotch, short-needed, moderate grower, bluish-green, true Riga type 3.50 10.00

Swiss Stone50 1.35
White90 2.50

Spruce, Norway, fast-growing, hill type 1.25 3.50
Norway, moderate grower, wind-burn-resistant, lowland type, 1.65 4.50

Sitka 2.90 8.00
Taxus cuspidata 1.10 3.00

Apple, Common, for stock, .50 1.35
Siberian Crab (baicalica) 1.10 3.00

Birch, European White 1.10 3.00
Native Paper 1.10 3.00

Camellia japonica, from named varieties90 2.50

Japanea, from wild plants, .75 2.00
sasanka70 2.00

Dogwood, White (florida), clean, D. B.80 2.25

White (florida) New England, Clinko Biloba 1.50 4.25

Holly, American, clean, .85 2.25
Lespedeza, bicolor, 1.25 3.50

formosa 1.10 3.00
Lilac, Common 1.35 3.75

Maple, Sugar, New England, .75 2.00
Pear, Common 1.10 3.00

Rose, Multiflora, thornless, 1.20 3.25
Multiflora, thorny 1.20 3.25

Thorn, Washington (cordata), 1.25 3.50
Tulip Tree, Liriodendron, .35 .90

Thurnum Linden (dilatatum), 1.20 3.25
Clematis, Paniculata 1.65 4.50

Ivy, Boston (tricuspidata), .70 2.00
F. W. SCHUMACHER
P. O. Box 131 Jamaica Plain 30, Mass.

For a blight and wilt resistant tomato, see our tomato seed advertisement in the January 15 issue of this publication, page 31, about Tomato No. 52, BEN BEIMERS, 1111 Lincoln Ave., Alameda, Calif.

SHRUBS AND TREES

LINING-OUT STOCK. FIELD-GROWN PLANTS.

Honeysuckle, Heckrotti, Per 100 Per 1000

12 to 18 ins. \$12.00 \$100.00
Euonymus coloratus, 8 to 10 ins. 12.00 100.00

Radiance, 8 to 10 ins. 100.00
Carrierei, 8 to 10 ins. 12.00 100.00

Lombardy Poplar (whipla), 6 to 12 ins. 2.00 15.00

12 to 18 ins. 2.50 22.50
18 to 24 ins. 3.00 25.00

FROM 1 1/2-IN. POTS.

Snowball, common 12.00 100.00
Spiraea foebeli 5.00 45.00

Spiraea Anthony Waterer 6.00 55.00

ROOTED CUTTINGS.

May 10 delivery.

Euonymus coloratus 8.00 75.00
Euonymus radicans 7.00 65.00

Euonymus carrierei 7.00 65.00
HARDWOOD CUTTINGS, 7 ins. Handmade, Per 100 Per 1000

Lombardy Poplar \$3.00 \$27.50
Willow, Russian Golden 4.00 . . .

Privet, Amur River North, 4.00 35.00
Privet, California 3.00 27.50

Cash, please. No packing charges.

PRITCHARD NURSERIES
Rt. 4, Ottawa, Kan.

MIMOSA TREES.

Wide-spreading lawn tree, excellent for shade PL'S producing pink flowers to add beauty to any landscape job.

Scottville Dallas

Each \$0.50 \$0.55
4 to 5 ft. BR.70 .80

5 to 6 ft. BR. 1.00 1.10
6 to 8 ft. BR. 1.50 1.65

8 to 10 ft. BR. 1.50 1.65

VERHALEN NURSERY CO.
Scottville, Tex.

or 1114 So. Beckley, Dallas 8, Tex.
"Your Profits Grow in Verhalen Plants"

SHRUBS AND TREES—Continued

LINERS, QUALITY PLANTS. Spring or Fall Delivery.	
Each	
Azalea, Mollis Cream, 2 to 4-in.	\$.08
Andromeda (Pieria), 4 to 6-in. C. X.	.20
Choysia ternata, 8 to 10 ins. XX.	.35
Daphne mezereum, 6 to 8 ins. X.	.12
Daphne mezereum, 8 to 10 ins. X.	.17
Daphne odora, 6 to 8 ins. frame.	.35
Daphne odora, 8 to 10 ins.	.45
Heather, mediterranea, 2 to 4-in. spread	.15
Heather, mediterranea alba, 2 to 4-in. spread	.15
Heather, Springwood White, 2 to 4-in. spread	.15
Heather, carnea, 2 to 4-in. spread	.15
Cypress, nestoides, X, fld.	.20
Thuja lobbii, 4 to 6 ins. X, fld.	.17
Thuja lobbii, 6 to 8 ins. X, fld.	.20
Thuja woodwardia, globe, 6 to 8 ins. X, fld.	.18
Skimmia japonica, X, fld., branched	.35
Cash with order, F.O.B. Shipped express.	
FOUR STAR NURSERY	
Rt. 3, Box 3529 Edmonds, Wash.	

FLOWERING SHRUBS.

- *Quality Stock
- *Reasonable Prices
- *Large Supply for Easy Selection.
- *Generous Grading

SPIRAEA REEVES, DOUBLE.	
Each	Dallas
18 to 24 ins. BR.	\$.30
30 to 36 ins. BR.	.50
SPIRAEA PRUNIFOLIA.	
2 to 3 ft. BR.	.30
3 to 4 ft. BR.	.50
CHINESE WISTARIA.	
1-yr. No. 2. BR.	.20
1-yr. No. 1. BR.	.30
3-yr. No. 1. BR.	.50
3-yr. tree form, Jumbo grade.	.90
BR.	1.00

VERHALEN NURSERY CO.

Scottville, Texas
or 1114 South Beckley, Dallas, Texas
"Your Profits Grow in Verhalen Plants"

MIMOSA.

Albizia Julibrissin.
Now booking orders for future delivery at rock-bottom prices for clean, well grown, healthy stock of this popular, most beautiful, small, pink-flowering tree. Easy to transplant. Grows quickly.

	Per 100	Per 1000
6 to 10 ins.	\$ 2.50	\$ 20.00
12 to 18 ins.	4.00	30.00
24 to 30 ins.	5.00	35.00
36 to 40 ins.	10.00	70.00
50 at 100 rate. 500 at 1000 rate.		
3 to 4-ft. transplants.	17.00	100.00
4 to 5-ft. transplants.	30.00	225.00
6 to 7-ft. transplants.	65.00	
7 to 8-ft. transplants.	90.00	
Not less than 10 at 100 rate.		

RIEGL PLANT CO.
Experiment, Ga.

ORIENTAL MAGNOLIAS.

M. soulangeana and M. alexandrina.	
Per 100	Per 1000
12 to 18 ins. CT.	\$3.50 \$30.00
18 to 24 ins. CT.	4.00 35.00
3 to 4 ft. B&B.	24.00 210.00
4 to 5 ft. B&B.	32.00 280.00
5 to 6 ft. B&B.	40.00 350.00
M. nigra.	
12 to 18 ins. CT.	3.00 25.00
18 to 24 ins. CT.	3.50 30.00
3 to 3 ft. B&B.	16.00 150.00
3 to 4 ft. B&B.	24.00 210.00
12 to 18 ins. CT and 18 to 24 ins. CT liners	
bare-rooted, packed in sphagnum moss, no packing charge. B&B stock loaded in your truck or boxcar.	

OVERLOOK NURSERIES, Inc.

Mobile, Crichton Station, Ala.

Magnolia grandiflora seedlings, 1-yr. average about 5 ins., \$55.00 per 1000. 300 at thousand rate. 2-yr. seedlings, 12 to 18 ins., 25¢; 18 to 24 ins., 40¢; 2 to 3 ft., 50¢. Some magnolia leaves injured in top of plant because of record low temperatures in Nov. Euonymus patens, large leaf, vine type, 1-yr., rooted cuttings, about 6 ins., 10¢. Euonymus patens, seedlings, 1-yr., 1 to 2 ft., 10¢. Euonymus coloratus, 2-yr., cutting-grown, 1 to 2 ft., 15¢. Water Oak, almost evergreen here, 18 to 24 ins., 15¢. Willow Oak, 12 to 18 ins., 10¢. Another oak (name in doubt), huge acorns, fast grower, nice tree, 2 to 3 ft., 20¢. Cash before shipment, packing free. F.O.B. Van Buren, Ark. Shipment until about April 10. HARWELL NURSERY, Van Buren, Ark.

RED JAP. MAPLE SEEDLINGS.

Selected 100 per cent red. (Sturdy.)

	Per 100	Per 1000
6 to 10 ins. X, 2-yr.	\$25.00	
6 to 8 ins. X, 2-yr.	25.00	\$200.00
6 to 8 ins. X, 1-yr.	15.00	150.00

Spring delivery.

ELWOOD HUBBS

204 Delaware Ave. Palmira, N. J.

GINKGO BILOBA LINERS.

	Per 100	Per 1000
2 to 4 ins.	\$3.00	\$25.00
4 to 6 ins.	4.00	35.00
6 to 8 ins.	5.00	45.00

Cash with order. Packing extra.

EDMOND L. BABCOCK NURSERY

32 West Ave. Danville, N. Y.

LINERS, SPRING DELIVERY.

	Each
Viburnum burkwoodii, 6 to 8 ins.	\$0.17
Viburnum burkwoodii, 8 to 10 ins.	.21
Daphne cneorum	.12
Daphne odora	.15
Juniperus tamariscifolia, 2 to 4 ins.	.10
Juniperus tamariscifolia, 4 to 6 ins.	.15
Juniperus tamariscifolia, 6 to 8 ins.	.18
Lithospermum (Heavenly Blue)	.15
Terms: Half of amount with order, balance C.O.D.; packing at cost, shipped express.	

FOUR STAR NURSERY

Rt. 3, Box 3529 Edmonds, Wash.

SHADE TREES.

Thornless Honey Locust.	
Each	Each
per 100	per 1000
4 to 6 ft.	\$0.45 \$0.40 \$0.35
6 to 8 ft.	.75 .70 .65
8 to 10 ft.	1.00 .90 .80
1 to 1 1/2-in.	1.50 1.40 1.30
1 1/2 to 2-in.	2.00 1.85 1.70
2 to 2 1/2-in.	2.50 2.35 2.20
2 1/2 to 3-in.	3.00 2.80 2.60

FARMER NURSERY

Plainview, Tex.

JUNIPERUS HETZI GLAUCA

Each per 100

1-yr., 4 to 6 ins. \$0.10

2-yr., 6 to 9 ins. .18

Samples sent on request.

LONICERA ZABELI

12 to 18 ins. .10

18 to 24 ins. .15

PHILADELPHUS VIRGINALIS

12 to 18 ins. .20

18 to 24 ins. .30

BALCOM NURSERY

Kokomo, Ind.

LINING-OUT STOCK.

MAGNOLIA, rooted cuttings from 3-in. pots.

Varities: Per 10 Per 100

Liliflora \$4.00 \$35.00

Stellata 5.50 50.00

Soulangeana 5.00 45.00

Soulangeana nigra 5.50 50.00

Soulangeana lennei 6.50 60.00

No charge for packing if cash with order.

SEPER NURSERY

North Delsea Drive Vineland, N. J.

CHINESE ELMS.

Straight, well shaped. Each per 10

8 to 10 ft. \$1.00

1 1/2 to 2-in. 1.50

2 to 3-in. 2.25

3 to 4-in. 2.00

BUSH HONEYSUCKLE, red, pink.

3 to 4 ft. \$4.50 per 10.

COLEMAN'S NURSERY

Ft. Scott, Kans.

AMUR RIVER SOUTH PRIVET.

These plants were well spaced in the field and grew unusually big and bushy.

Scottville, Dallas

30 to 36 ins. BR. \$12.00 \$125.00

3 to 4 ft. BR. 15.00 16.00

VERHALEN NURSERY CO.

Scottville, Tex.

or 1114 So. Beckley, Dallas 8, Tex.

"Your Profits Grow in Verhalen Plants"

LINING-OUT STOCK.

We offer Chinese Chestnuts; Native Shrubs.

Trees and Evergreens; Flowering Peach and Ornamental Plums, and Fruit and Shade

Trees. Top-quality, dependable plants at reasonable prices.

GLOBE NURSERIES

Box 249 McMinnville, Tenn.

SURPLUS.

Chinese Elms, 4 to 7 ft., collected, mostly

6 ft. Straight, some branched. \$25.00 per 100;

\$20.00 per 100 in 1000 lots. 250 at 1000 rate.

Special prices on large quantities. Will trade for potted liners.

HUNTER & SONS NURSERIES

Rt. 8, Box 547 Tulsa, Okla.

MAGNOLIA SOULANGEANA NIGRA.

Field-grown, heavy.

2 to 3 ft. BR. \$1.25 ea.

3 to 4 ft. BR. \$1.50 ea.

To be shipped before March 1.

WELCH BROS. NURSERY

Semmes, Ala.

Per 100 Per 1000

1000 Irish Juniper \$50.00 \$400.00

1000 Cydonia japonica 30.00 250.00

3000 Japanese Ligustrum, 3c and 6c each.

Many other liners.

The CHALIN LEWIS NURSERY

P. O. Box 83 Piggott, Ark.

EUROPEAN WHITE BIRCH SEEDLINGS.

We offer 25,000 White Birch seedlings, 4

to 6 ins., \$17.00 per 1000. In 1000 lots only.

Cash with order, please.

WILLA NURSERIES

Montavilla Station, P. O. Box 5137

Portland 16, Ore.

LIGUSTRUM JAPONICA, 1-yr. edigs.

(Leaves will be removed.) Packed in moss

and delivered at the following prices: 12 to

18 ins., 6c; 18 to 24 ins., 8c; 24 to 30 ins., 10c

each. Cash with order, please. STEED'S

NURSERY, Candor, N. C.

CHINESE ELM TREES.

4 to 6 ft., \$20.00 per 100.

6 to 8 ft., \$45.00 per 100; 25 at the 100 rate.

2 to 4-ft. liners, \$5.00 per 100.

GRUNDY'S GARDENS

Box 325 Anton, Texas

Herberia thunbergii.

2-yr. edigs. 12 to 18 ins. \$35.00

2-yr. edigs. 8 to 12 ins. 15.00

L. P. BRICK NURSERY

Painesville, Ohio

HACKBERRY TREES, B&B.

2 to 3-in. dia., 12 to 18 ft. tall, straight

(tree) from 10¢ each.

SEDALIA NURS., 501 Ohio, Sedalia, Mo.

VEGETABLE ROOTS

VICTORIA RHUBARB ROOTS.

1/2 to 3/4-in., \$15.00 per 1000; 3/4 to 1-in.,

\$20.00 per 1000; 1 to 1 1/4-in., \$35.00 per 1000

1 1/4-in. up, \$45.00 per 1000. New crop seeds,

\$1.00 per lb., 10 lbs. and over, 75c per lb.

Free boxing.

ASHCRAFT'S PLANT NURSERY

Copemish, Mich.

MISCELLANEOUS

SPRING SURPLUS.

100 Moss Cypress Imp., blue, Per 100

12 to 15 ins. \$125.00

800 Jap. Red Maple, 1-yr. select red. 15.00

1000 Ilex convexa, 3-yr., S. tr. 15.00

200 Epimedium 20.00

100 Hemerocallis Hyperion 30.00

100 Hemerocallis Theron, maroon 40.00

100 Hemerocallis, Lyonian hybrid, select 40.00

2000 Taxus, 1-yr., edigs. 5.00

25 Celastrus scandens, 6-yr., heavy, \$1.50 each.

50 Apple, 6 to 8 ft., good varieties, mixed, \$1.00 each.

Cash with order, please.

BRIMFIELD GARDENS NURSERY

245 Brimfield Rd. Wethersfield, Conn.

1000 Kentucky coffee tree, 50,000 Amur

River North Privet, 7-in. cuttings, \$2.50 per

1000. Many others, 1000 lbs. Kentucky coffee

beans, 25c per lb.

Sycamore (Platanus), 45c per lb. Privet

seeds, 90c per lb.

SCHROEDER NURSERY CO.

Granite City, Ill.

RED CEDAR TRANSPLANTS.

6 to 10 ins. Platte type.

\$3.50 per 100; \$30.00 per 1000.

MCDONALD RHUBARB.

No. 1 divisions.

\$15.00 per 100; \$130.00 per 1000.

HOME NURSERY

Cuba, Kan.

DECORATIVES

PINE CONES.

New Pine cones in lots of 6 bu. or more.

Loblolly Pine cones, 3 1/2 to 4 1/2 ins.,

per bu. \$1.10

White Pine cones, 4 to 6 ins., per bu. 1.10

In large amounts, per bu. .95

525 Pine cones, 1 1/2 to 2 1/2 ins. 2.50

Little cones for cornucopias, 3 qts. 1.25

Send for pine cone list. Cash.

MARYLAND NURSERY, Hyattsville, Md.

SUPPLIES

MEL-LO PEAT.

A pure sedge Peat, sun-cured, air-dried,

analyzed 2 to 2 1/2 per cent nitrogen, 5¢ per

cent humus; acidity, 5.3 to 5.8. Golf courses

demand Mel-lo Peat—will not ripple after

top dressing greens. Greenhouses, nurseries

and landscape gardeners

DAHLIA OR TREE LABELS.

Priced per 1000	
plain painted	
3 1/4 x 5/8 ins., notched, not wired.....	\$2.50 \$3.00
3 1/4 x 5/8 ins., wired (copper).....	3.30 4.10
FOT LABELS.	
4 x 5/8 ins. (cartons 1000 each)....	3.30 3.95
5 x 5/8 ins. (cartons 1000 each)....	3.60 4.30
6 x 5/8 ins. (cartons 1000 each)....	3.90 4.85
Priced per carton.	
8 x 5/8 ins. (cartons 500 each).....	2.00 2.60
10 x 5/8 ins. (cartons 500 each).....	2.60 4.25
GARDEN STAKES.	
Priced per carton.	
8 x 5/8 ins. (cartons 250 each)....	2.50 3.00
10 x 5/8 ins. (cartons 250 each)....	2.75 3.25
12 x 1 1/2 ins. (cartons 100 each)....	1.75 2.00

Our labels are perfectly white and smooth on both sides and are pronounced by growers the best and most economical.

YOHO & HOOKER, Youngstown 2, Ohio.

Made from a good grade of Southern Yellow Pine, since Cypress is not available. Standard specifications. Inside measurements.

KNOCK-DOWN FLATS.

16x12x2 1/2"	\$18.82 per 100
16x14x3"	24.98 per 100
20x14x3"	24.66 per 100
20x14x3"	28.68 per 100
22x16x3"	28.14 per 100
22x16x3"	32.63 per 100

All other sizes quoted on request. Prices F.O.B. Birmingham.

We are manufacturers, not jobbers. Freight to any point is a small item per Flat. Our Flat are the best. Why pay more? Our quality guaranteed. Prompt shipment, any quantity. Attach check to order.

We make mixed shipments of flats, plant boxes and spray boards.

HIGHTOWER BOX & TANK CO.

Birmingham, Ala.

MICHIGAN PEAT.

HIGH NITROGEN, BACTI-VATED quality Peat at low price. 5 sizes of bags for resale. Huge 100-lb. burlap bag contains 4 to 5 bu. concentrated peat—ONLY \$1.66 bag F.O.B. Minimum order 2 bags. Order genuine M. P. only from

MICHIGAN PEAT, Inc.

Capac 62 Capac, Mich.

BARGAIN CYPRESS FLATS, K.D.

Made from No. 2 grade Red Cypress. Has some defects but guaranteed all usable pieces. Orders must be in units of 100-200 and up.

Use 20x15x3 ins. inside, \$31.50 per 100. We ship same day, subject to present stock.

Attach check to order, please.

YOHO & HOOKER, Youngstown 2, Ohio

Priced for quick sale, one new electric power plant, 60 cy. 110 volts and 60 cy. 1-phase 220 volts at the same time. Run by 15 HP Hercules gasoline motor. Complete factory-built unit by Hobart. Suitable for auxiliary plant, freezer plant, small factory, hospital or greenhouse. J. K.'s ORCHARD, Huntsburg, Ohio.

WISCONSIN'S QUALITY SPHAGNUM

MOSS.

Clean, long-fibered, solidly packed in burlapped or wired bales of standard size, direct from drying beds. None better.

Trucked when feasible.

WARRENS MOSS CO., Box 7, Warren, Wis.

PRINTING—Letterheads, Billheads, Statements, Cards, Envelopes, Tags, Blotters, Folders, Samples sent.

J. GARLAND HILL, Dept. A, Seaford, Del.

PAY LESS FOR WOOD LABELS. High

quality, fully guaranteed. Write for prices and samples. ANTHONY & CO., Escanaba, Mich.

WANTED

WANTED IMMEDIATELY.

Evergreen tip cutting wood of Arborvitae, Taxus and Junipers. Please state variety, price and quantity available.

CRYSTAL LAKE EVERGREEN NURSERY R. D. No. 4, Slippery Rock, Pa.

WANTED—20,000 Ampelopsis veitchii, 1-yr. sdigs.; 20,000 Red Barberry, 2-yr. sdigs.; 20,000 Green Barberry, 2-yr. sdigs. Quote best price. FRANK TOREKI & SON NURSERY, Falmesville, O.

TRADE BOOKS

TRADE BOOKS.

CULTIVATED CONIFERS.

by L. H. Bailey, \$10.00.

THE BOOK OF SHRUBS.

by A. C. Hottes, \$4.00.

MAINTENANCE OF SHADE AND

ORNAMENTAL TREES AND SHRUBS.

by P. P. Pirone, \$6.50.

IMPROVED PRACTICES IN

PROPAGATION BY SEED.

by L. C. Chadwick, 25c.

These books and others on horticultural subjects may be obtained, postpaid, at the publishers' prices indicated, from

AMERICAN NURSERYMAN

348 South Dearborn Chicago 4, Ill.

VIRGINIA CONVENTION.

[Concluded from page 10.]

mism." Reviewing briefly the turmoils and emergency periods in American and international history, Dr. Pinchbeck predicted that the next generation will have peace in this world. "But before that time arrives," he added, "there will be many 'Koreas' to harass the free peoples of the world. We may have to live for many years in a twilight of uncertainty, and perhaps between two great wars." However, the noted educator, lecturer, tax expert and a former state and federal official, saw no great war in the immediate present.

Final Speakers.

Tuesday's session was opened with a panel discussion of "Doing Business in a War Economy." Mr. Seyler served as moderator, and participants included William Flemmer, Jr., and George Harris, Princeton Nurseries, Princeton, N. J., and E. M. Quillen, Waynesboro Nurseries, Inc. Adopting the premise that supplies and labor will be harder to obtain, the panel suggested that nurserymen put their houses in order through better organization for more effective operation. The informative discussion included suggestions to use teenage boys in the nursery, better equipment to save time and increase performance rate, improve the appearance of the premises, maintain equipment in good condition and develop better cooperation between consumer and producer.

Prof. Albert Beecher, landscape architect, department of horticulture, Virginia Polytechnic Institute, discussed "The Responsibility of the Landscape Nurseryman for Better Design." Stating that nurserymen have a "great opportunity in and a vast responsibility to their communities in improving the landscaping of American homes," Professor Beecher said "that the back yards of American homes constitute the nation's most misused resources." He suggested that these be developed through proper landscaping to be used for family living where a man can relax in the privacy of his personal domain.

He said that nurserymen can better help future homeowners to landscape their grounds by talking to them before the house is built. This, he explained, should point out to the property owner that there should be a definite relationship between the architecture of the house and the landscape surrounding it.

Mr. Harris was the final scheduled speaker, addressing the association on "Better Planning in the Use of Personnel, Land and Equipment." He

said that during the current emergency and for some time to come, the industry will have to use older men because of the labor shortage. He pointed out that older men generally are more experienced and better skilled and can be entrusted with greater responsibilities in the field, at the sales counter or in the greenhouse. Try to keep your labor on a 12-month basis, he said. He recommended that good equipment be used not only to obtain better performance, but because men prefer to use good tools.

The luncheon speaker Tuesday was Mr. Seyler, who observed, "We always have had troubles, depressions, wars and periods of confusion." He suggested that men look into the Bible for faith and into history for guidance.

The social side of the 3-day meeting included a buffet supper and music Sunday night when nurserymen from the Richmond area were hosts to the visiting delegates, after-dinner music and dancing Monday, a ladies' luncheon Monday given by the association, access to the hospital room of the hotel for informal meetings and relaxation between sessions of the program and "Breakfast with the Pioneers."

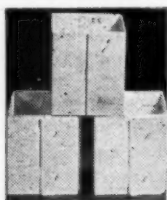
OHIO ARBORISTS' DAY.

[Continued from page 13.]

that the research technician is faced with in acquiring information on the proper methods of spraying, fertilizing, etc.

Mr. Observer then related several amusing incidents relative to the type of men employed, their behavior and ways of circumventing their shortcomings. In general, he told how a study of personnel problems has resulted in the formulation of a company policy to regard all of its employees as fellow workers rather than as hired men. The employees today are not the roustabouts of many years ago. They are a respected part of their community and take active part in community affairs.

Mr. Observer then "dared" to prophesy. He felt that the future would see: 1. Newer and finer tools. 2. New and more skillful techniques in pruning operations. 3. A more scientific application of spray materials by mist blowers and airplanes. 4. Improvement of tree fertilization methods and materials by absorption of liquid through the leaves. 5. The possible extension of underground services by public utilities so that fewer trees will have to be pruned for wire clearances. 6. A more conscientious attitude by all who



STAPLED WOOD PLANT BANDS

Sturdy plant bands made of cottonwood, securely fastened with two wire staples for quick setup.

Size in Ins.	Per 1000	Size in Ins.	Per 1000
1 1/4 x 1 1/4 x 2 1/4	...\$4.20	2 1/2 x 2 1/2 x 3	...\$4.70
2 x 2 x 2 1/2	...4.30	3 x 3 x 3	...5.10
2 x 2 x 3	...4.60	3 x 3 x 4	...5.40
2 1/4 x 2 1/4 x 2 1/4	...4.50	4 x 4 x 3	...5.40
2 1/2 x 2 1/2 x 2 1/2	...4.60	4 x 4 x 4	...6.20

Shipped promptly from the factory in Illinois.

WOOD PLANT BANDS



"Easi-Off"

Saves time and labor. Bands are removed without cutting; therefore, the dirt ball and roots are not disturbed.

CAT.	Size in Ins.	Weight per 1000	Per 1000
No. M-310	1 1/4 x 1 1/4 x 2 1/4	12 lbs.	\$3.75
No. M-320	2 x 2 x 2 1/2	15 lbs.	4.10
No. M-340	2 1/2 x 2 1/2 x 3	20 lbs.	4.50
No. M-350	3 x 3 x 3	21 lbs.	4.80
No. M-360	3 x 3 x 4	40 lbs.	4.95
No. M-391	4 x 4 x 4	40 lbs.	5.60

LIGHT WOOD FLATS

For handling and shipping all sizes of Plant Bands.

	Per 100
M-370; holds twelve 1 1/4-inch Bands.....	\$2.95
M-390; holds twelve 2-inch Bands.....	3.20
M-392; holds twelve 2 1/2-inch Bands.....	4.20
M-393; holds six 3-inch Bands.....	3.90
M-394; holds six 4-inch Bands.....	4.80

Shipped promptly from the factory in Michigan.

BIRD Vita-Bands

VITA-BAND 40: Growers are reporting outstanding results in vigorous, well balanced growth. Exclusive nutrient treatment affords a liberal supply of balanced plant food. Transplanting shock eliminated, saving 1 to 3 weeks' setback. Sturdy fiber resin construction. Watering frequency cut 50%. For the longer growing periods of approximately 40 weeks. **SOLD OUT.**

VITA-BAND 10: Brings nutrient treatment to the low-priced plant band field. For the shorter growing periods of 8 to 10 weeks.

Size in Ins.	Price per 1000
	Vita-Band Vita-Band
	40 10
1 1/2 x 1 1/2 x 3 1/2	Sold Out \$ 3.60
1 3/4 x 1 3/4 x 2 1/4	Sold Out 3.90
2 x 2 x 2 1/2	Sold Out 4.10
2 x 2 x 3	Sold Out 4.90
2 1/2 x 2 1/2 x 3	Sold Out 5.85
3 x 3 x 3	Sold Out 6.75
4 x 4 x 3	Sold Out 8.85
4 x 4 x 4	Sold Out 11.10

Sold in units of 1000 only.

F.O.B. Chicago, or East Walpole, Mass.

Tom Thumb FLATS

Made of heavy waterproof fiber resinous material. Use with Vita-Bands. The most economical way to sell potted annuals in dozen lots. Build sales and repeat business with easier-to-set-out potted plants in this neat package.

No. 1 for 1 doz. 1 1/4-in. Bands.
No. 2 for 1 doz. 2-in. Bands.

Tom Thumb Flats Per 1000		Combination 1000 Flats 12,000 Vita-Band 40 Per 1000 Sets		Combination 1000 Flats 12,000 Vita-Band 10 Per 1000 Sets	
Size	Size	Size	Size	Size	Size
No. 1	No. 2	No. 1	No. 2	No. 1	No. 2
\$44.70	\$49.60	SOLD OUT		\$86.43	\$95.65

F.O.B. Chicago, or East Walpole, Mass.

AMERICAN FLORIST SUPPLY CO.
1335 W. Randolph St., CHICAGO 7
31 W. 27th St., NEW YORK 1

take part in insect control. 7. The study of conditions which will allow the tree worker to advise on types and varieties of trees to plant for the greater ultimate benefit of future generations. 8. Chemotherapy, which will be considerably improved and give better results.

Toxicity of Newer Insecticides.

Dr. C. C. Hamilton, entomologist at the New Jersey agricultural experiment station, New Brunswick, discussed in detail the toxicity to trees of some of the newer insecticides. This is important, he said, because of the increasing use of the mist blower type of sprayer to apply some of the newer insecticides in a concentrated form. On this account various factors must be considered in using the newer products. He presented information on the tests so far done. He believed that applications with a mist blower type of sprayer offered no unduly great hazard to tree foliage under normal conditions. He thought the mist blower would find more of a place in the nursery, where there is less chance of injuring neighboring plants and straying animal pets, than in arborists' work. Fuller report of his talk will appear in a subsequent issue.

Transplanting Small Trees.

Theodore F. Mathieu, of the department of horticulture, Ohio State University, presented data by fifty-three nurserymen and arborists in response to a questionnaire as to the practices in the field for moving trees having 2 to 4-foot balls. The data will be presented in detail in a subsequent issue.

Paul E. Tilford, executive secretary of the National Arborists' Association, Wooster, O., followed the evening dinner with a talk beautifully illustrated with color slides. He used as his theme "The Four Seasons" as exemplified by the Norman Rockwell pictures and maintained the philosophy of the pictures in his talk. As the seasons followed through the year, the various practices of arboricultural work were explained and elaborated. The newer developments were also shown and incorporated into the theme. This sort of lecture should go far in presenting, not only to arborists, but also to the public, the importance and value of tree care.

C. L. MOSER, Glenbard Nursery, Glen Ellyn, Ill., started on an airplane trip to Germany at the end of January, to spend fifteen days in that country and visit his father in the Black Forest.

SEYMOUR SMITH

TOOLS FOR EASIER PRUNING



"Snap-Cut" Hand Pruner for General Use

Long Handled Pruner



For Heavy Shrubs



"TIP TOP" Tree Pruner for High Cutting

These and many other fine cutlery steel garden shears may be had at your hardware or seed store. To be sure of durable, easy-cutting "Seymour Smith" tools, ask for them by name. They are fully guaranteed. Insist on **QUALITY**—it always costs less!

NEW PRUNING HANDBOOK—FREE

Just published! Authoritative book on pruning. Packed with each Seymour Smith pruning tool—or send 10c to factory.

Seymour Smith & Son, Inc.
12302 Main St., Oakville, Conn.

"Not a Weed Left"



The BARKER Roller-Weeder-Mulcher-Cultivator. Saves You Time—Saves You Labor—Write for literature, sizes and new low prices.

...with the new **ROLLER-BEARING BARKER Weeder**—Has tubular steel handle, ventilated filler drum, adjustable lower knife, dust excluder tube and 60-degree V-type five shovel bar that moves the dirt toward the plants, leaves no ridges and does not trash up so easily. Much easier to use; does far better work. Patented features put it years ahead.

"So Easy and Fast"
Tend your garden with this NEW BARKER precision-built Roller-Bearing Weeder, Mulcher and Cultivator. "Best Weed Killer Ever Used." Rotating blades and underground knife destroy weed growth and in same operation break up the clods and crust, aerate the soil, work the soil into a level, moisture-retaining mulch. Anyone can use it, do more work than ten men with hoes.

BARKER MFG. CO., Box 30, David City, Nebraska

FOR SALE

6-ft. Williams & Harvey rocker-type tree mover, power take-off winch and tools, mounted on 1947 V-8, 1 1/2-ton truck.

Mover like new, used only two seasons.

ROADSIDE LANDSCAPING, Inc.

Paul E. Bleile
29 E. Washington St.
Norwalk, Ohio

WANT ADS

Help and Situation Wanted and For Sale advertisements.

Display: \$3.00 per inch, each insertion.

Lines: 25c line; minimum order \$2.00.

HELP WANTED

By established southern wholesale firm, a man with managerial and sales ability. Good opportunity for right party. Kindly state experience and age in reply. Address Box 784, care of American Nurseryman.

HELP WANTED

Young man with experience in general landscape and/or tree service work. Permanent year-round position with opportunity for management. Located in a progressive Wisconsin community. Write age and experience. Address Box 785, care of American Nurseryman.

SITUATION WANTED

Married man, age 34, with 13 years of nursery and greenhouse experience, desires year-round position in a well established midwestern nursery. Ambitious, sober and reliable. Willing to work in any capacity ability justifies. Would like opportunity for advancement. References. Address Box 786, care of American Nurseryman.

SITUATION WANTED

Experienced nurseryman wishes permanent employment with established nursery in south or southeast. 15 years in retail nursery business in Midwest and present location. Age 53; married, wife and 3 children. Veteran World Wars I and II. Can handle men in all field operations and is experienced in all phases of landscape layout. Can give good references.

JOSEPH J. KASPER
P. O. Box 1193 Prescott, Ariz.

SITUATION WANTED

Position as landscape designer. Prefer doing work at home. 35 years' experience in all phases of landscape and nursery work in northwestern state. Reference: White Elm Nursery, Oconomowoc and Hartline, Wisc., 1921 to '34. Operating on my own in Chicago since.

O. L. SWANSON
4352 N. Troy St. Chicago 18, Ill.

SITUATION WANTED—Man, 40, married, two children, would like to become associated with midwestern nursery. Agricultural college graduate majoring in horticulture and ornamentals. Presently employed in county agricultural agent work in field of horticulture. Can draw plans. Interested in landscaping, retail sales, propagation, other nursery work. Would consider park or estate work. Can furnish best of references. Presently living at Kansas City. Address Box 777, care of American Nurseryman.

NURSERY FOR LEASE—One of the oldest and best established nurseries. Excellent location. Splendid opportunity to right person. Living quarters. Lease or percentage. Contact F. W. Miller only, at nursery. Phone: BR-2566. SHAKES NURSERY, 5225 N. Key-stone Ave., Indianapolis, Ind.

LANDSCAPE ARCHITECT—Will design detailed landscape plans to scale for nurseries on a 10 per cent of the cost of the materials basis. Send a rough sketch giving exact dimensions, etc. H. J. BAKER, 1412 W. Main, Crawfordsville, Ind.

WANTED—Side-line commission salesman by nationally advertised package lawn grass seed dealer. Address Box 782, care of American Nurseryman.

HELP WANTED

Experienced working foreman for landscaping at Minneapolis, Minn. Must be aggressive, able to give estimates, draw plans, sell and handle men. Modern 4-room house available. Give age, experience, references and salary expected in first letter. Permanent position and real opportunity for the right kind of man. Address Box 783, care of American Nurseryman.

HELP WANTED

Salesman with landscape and nursery experience. Unusual opportunity for highly profitable connection with large, prominent Philadelphia concern for qualified man. Salary, bonus and commission.

AMERICAN FORESTRY SERVICE
Lancaster Pike Philadelphia 31, Pa.

HELP WANTED

Field foreman on 100-acre evergreen nursery in north central state. Unusual opportunity for the right man. Please give complete information in first letter. Address Box 774, care of American Nurseryman.

HELP WANTED

Nursery 25 miles outside of Detroit, Mich., wants capable man who can execute landscape plans and take complete charge of nursery. State age, past experience and salary desired.

FLAT ROCK NURSERY
14210 Telegraph Rd. Flat Rock, Mich.

HELP WANTED

Landscape foreman experienced in following plans and planting landscape jobs, also in landscape maintenance and tree trimming. Must work with crew. Permanent position. Single man willing to travel preferred.

KANSAS LANDSCAPE & NURSERY CO.
Salina, Kansas

HELP WANTED

Landscape foreman for housing project and nursery operations. Unusual opening for aggressive man. Opportunity for part interest to right party. Permanent. Near Baltimore, Md. State age, experience, etc. Address Box 752, care of American Nurseryman.

WANTED RETAIL NURSERY

Capital and some land to invest in retail nursery. Limited personal participation. Northeast preferred. Replies confidential. All details first letter. Box 778, care of American Nurseryman.

FOR SALE

Modern garden center and salesyard built less than one year. Located in Baltimore city on one of the busiest highways in a section building rapidly. 35-car, hard-surface parking area fronting property. Store building has finished interior of natural finish knotty pine and a flagstone floor. 90x110 ft. halfshade intersected by hard-surface walks. Modern neon sign across entire frontage of 110 ft. Inventory includes trees, shrubs, vines, potteries, brass and copper items, insecticides, fertilizers, etc. Excellent prospects for huge landscape business. Immediate possession. Full details upon request.

WOODBINE NURSERIES

Woodbine, Maryland

Telephone: Sykesville 277

FOR SALE

Nursery, 20 minutes from Seattle on paved highway in fast-growing community. Rhododendrons, azaleas, primroses and camellias our specialty. 2 acres, 18x40-ft. greenhouse, lots of lath houses, large storage house, city water, plus own water system for sprinkling. Modern 3-bedroom house, automatic oil heat and electric water heater. A good buy at \$30,000.00.

IVERSON'S NURSERY

Rt. 2, Box 552 Bellevue, Wash.

FOR SALE

An outstanding opportunity to continue with one of the leading established nurseries of the Rocky Mountain region. Located on main highway in center of Colorado's richest agricultural area; population over 1/2 million in 60-mile radius. General retail, some wholesale and mail order. Excellent modern office and ample warehouse, modern 5-room house, variety of stock in field. Business successful over period of years with greater potential opportunities. Reason for selling, health and other interests. Possession by coming spring if desired. For further details address Box 779, care of American Nurseryman.

FOR SALE

Charles M. Laird Evergreen Nursery, 50 1/2 acres, 15 acres of planting, approximately 30,000 trees and plants, good retail and landscape business established. Balance of farm in crops and pasture. Modern house, barn, garage, poultry houses and storage. Equipment optional. Immediate possession. Price: \$20,000.00. TULLY C. FOX OR JOHN CHRISTY, BROKERS, ASHLAND, OHIO.



MENNEPOTS Make Profits for You

Extend your selling season and save time and labor in your potting operations! The economical medium for merchandising Roses, Shrubs, Trees, Annuals, Perennials, etc., in full flower, in all seasons. NO TRANSPLANTING; PLANT POT AND ALL.

Lightweight—superior strength—ready to use, with stapled bottom. This makes for laborsaving in potting time, yet allows for aeration and drainage for root systems! Roots readily penetrate pot's walls and bottom in normal growing habit. Plants can be redug with ease months later, because of a compact root system. The extremely light weight of the Mennepot makes shipping costs negligible.

Order next season's requirements Now!

All Shipments
F.O.B.
No. Tonawanda,
N. Y.

Less than 100
pounds take
100-lb. freight
rate.

Size	Approx. Wt. per 200	Top Dia.	Bot. Dia.	Ht.	Price per 100	Price per 1000
No. 1	30 lbs.	6 ins.	5 ins.	6 ins.	\$4.00	\$37.50
No. 2	40 lbs.	7 ins.	5 1/2 ins.	8 ins.	4.50	42.50
No. 3	50 lbs.	8 1/2 ins.	6 1/2 ins.	9 ins.	5.00	47.50
No. 4 Pan	80 lbs.	8 1/2 ins.	7 1/2 ins.	5 ins.	5.00	47.50

Terms: 2% Cash
with order.
Net 30 Days.

Packed 100 and
200 per carton.

500 or more take 1000 quantity price. Send 25c for one set of Samples.
We also manufacture in the above sizes an Extra-heavy pot. Quotations on request.

MENNO S. MENNES NURSERIES

Phone LUDlow 4444

NORTH TONAWANDA, N. Y.

OHIO CONVENTION.

[Continued from page 12.]

discussed the current world situation as it may affect the nursery trade in coming months, the activities of the Washington office of the A. A. N. and the association's convention to be held in July at New Orleans. Some shortages of supplies may occur, especially in such items as rope and twine. Labor will be tight; so the suggestion was made that nurserymen employ men beyond the draft age and women. The "Plant America" campaign, sales bulletins and a proposed group insurance plan were discussed briefly.

L. J. Parker, Eastman Kodak Co., Rochester, N. Y., gave an interesting talk on "Photography as Related to Sales Problems in the Nursery Field." He stressed the possible use of color photography as an aid in selling nursery stock and landscape jobs. Photography is of value in compiling a record of plant development from year to year. The nature and use of Kodachrome and Kodacolor were explained. Mr. Parker explained the need of carefully choosing the subject to be photographed and using the correct exposure. Methods by which depth in pictures and picture relief could be attained were discussed.

John W. Baringer, chief of the Ohio division of plant industry, spoke briefly on the nursery pest control program in Ohio during 1950 and some plans for 1951. The major discussion concerned the Japanese beetle control program. There is some possibility that there will be some revision in the policy of the Japanese beetle quarantine. Last year 1,383 nursery firms were registered in Ohio.

As usual, the annual "Ye Olde Tyme Dinner" proved to be an outstanding success. An abundance of food served in old-time style in a room decorated with evergreens,

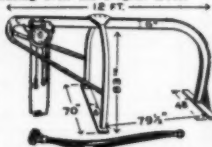
TROLLEY CHAIN HOIST

USED TO ADAPT QUICKLY ANY TRUCK FOR HEAVY
LIFTING—HAULING—LOADING

IDEAL FOR LIFTING AND
TRANSPLANTING TREES

Nurserymen everywhere have found these Spur Geared Trolley Chain Hoists (Wright or Yale) ideal for lifting and hauling even the largest trees.

These hoists are 1 1/2-ton capacity and were designed for use by the Army on 2 1/2-ton, 6 x 6 cargo trucks. One man can easily lift a large tree—haul it to a new location and place it accurately into position. This hoist can be used profitably and economically in your business, saving time and labor for you.



COMPLETE WITH SUPER
STRUCTURE—SAFETY
LOCK AND TOW BAR.



**WABASH TRUCK
PARTS, Inc.**

1718 S. State Street,

Dept. N-5 Chicago 16, Ill.

**IMMEDIATE
DELIVERY**
Order today! Satisfaction Guaranteed! Each hoist in brand new and ready to use. There are no extras to buy. Immediate delivery! F.O.B. yards, Chicago, Ill.

LIST PRICE ... \$384.50
NOW
OVER 1/2 OFF \$184.50
LOTS OF 3... 169.50
HOIST ONLY... 105.00
LOTS OF 3... 99.50

NURSERYMEN

It attracts—It brings in traffic!

Sells other items as well as PLANT MARVEL!

Builds Sales, Profits and Satisfied Customers.

PLANT MARVEL

"feed as you water"

A leader in retail sales because, in addition to high quality, it has EYE APPEAL. Beautiful new lithographed 1/2-lb. and 1-lb. containers. A nationally advertised product. Used and sold by leading Florists and progressive Nurserymen. Highest Analysis—12 per cent Nitrogen, 31 per cent Phos. Acid, 14 per cent Potash, plus minor elements and B₁. All water soluble. Absolutely no colloidal residue.

Write today for complete details
and FREE Trial Size Package!



PLANT MARVEL LABORATORIES

12050 Parnell Ave.

Dept. AN-2

CHICAGO 28, ILL.

shrubs and garden flowers forced into bloom satisfied all in attendance. Prof. L. C. Chadwick, department of horticulture, Ohio State University, acted as toastmaster.

Retail Operations.

Friday morning's session opened with a panel discussion on "Operating a Retail Nursery Business." Devol Ernst, Ernst Nurseries, Inc., Muncie, Ind., was chairman of the panel. Others taking part in the discussion were C. M. Loose, Loose Nursery, Dayton, and Charles Kohankie, Painesville.

Mr. Loose discussed a merchandising type of business. He suggested that those interested in this type of business might follow some of the ideas of the chain stores. Study other types of merchandising establishments. But develop a distinctive style of business.

Place signs pointing out the nursery far enough away from the store to give the customers ample time to slow down to turn into the nursery.

Provide ample entry space and parking areas.

Display plants attractively on the sales lot. Provide good frames for holding plants; Permacrete slabs make good frames, as they are easily moved and comparatively cheap. Lath houses should be kept neat.

Do not cause confusion with too much merchandise. Enough should be on display to give a variety of choice. Put merchandise where it can be examined. Everything should be tagged and priced. Use uniform price tags and labels. Package material is a necessity for at least one to three weeks. Put plenty of color on the packages. Picture displays are good advertising and sales aids.

Many items other than plants may be carried to round out the business. Seeds and insecticides are good items. Go light on stocking garden tools in a new business. Lawn mowers are good items. Sprinklers and garden hose always sell well in dry periods. Garden furniture makes a good sales exhibit. Display garden furniture in the shade. Much extra business can be done with Christmas merchandise.

Do extra things for the customer. This builds good will. Give free literature on planting and care of plants and related topics.

Landscape Maintenance.

Charles Kohankie discussed some of the practices and policies he follows in his landscape maintenance business. He operates a small nursery to provide some special items for his landscape work. Surpluses are sold at wholesale. No maintenance



Made for the
PROFESSIONAL NURSERYMAN

GENSCO

BUSHMAN IMPORTED SWEDISH PRUNING SAW

MODEL 103



- ★ Highly Polished Swedish Steel Blade!
- ★ Bushman Teeth (Cut on Both Strokes)!
- ★ Varnished Beech Handle!
- ★ Full 24-inch Length!
- ★ Fastest-cutting Pruning Saw Made!

PRICE

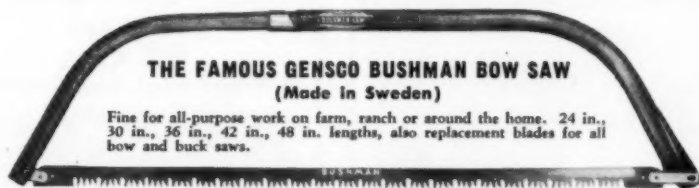
\$4.95

The saw demanded by nurserymen!
Famous, fast-cutting patented Bushman teeth cut on forward or backward stroke. The fastest-cutting—most dependable pruning saw you've ever used.

IF YOUR SUPPLIER DOESN'T
HAVE IT - WRITE DIRECT

OTHER GENSCO BUSHMAN
PRUNING SAWS INCLUDE:

Tubular Extension Handles
Folding and Pistol Grip Handles
Curved Handles
Blades from 10 to 20 inches



THE FAMOUS GENSCO BUSHMAN BOW SAW (Made in Sweden)

Fine for all-purpose work on farm, ranch or around the home. 24 in., 30 in., 36 in., 42 in., 48 in. lengths, also replacement blades for all bow and buck saws.

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GENERAL STEEL WAREHOUSE CO., INC.

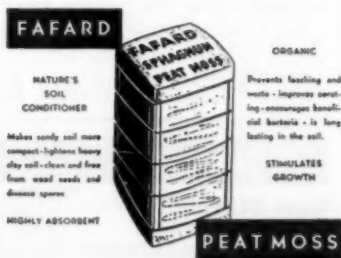
GENSCO TOOL DIVISION

1830 NORTH KOSTNER AVENUE

CHICAGO 39, ILLINOIS

SHREDDED SPHAGNUM MOSS

Lightweight Growing Medium



SAVES ON SHIPPING COSTS

- Bales
- Half Bales
- Bags
- Boxes

Horticultural Peat-Humus

Samples furnished on request

CONRAD FAFARD, Inc.
Box 774, Springfield, Mass.

BIG TREE MOVER

- ✓ Handles up to 12-inch trees.
- ✓ "Rocks back" for easy loading and unloading.
- ✓ "Rocks forward" for balanced load on truck.
- ✓ Two sizes . . . custom fitted to your truck.
- ✓ Fits any standard truck chassis.
- ✓ Superstructure removable for other truck use.
- ✓ Proved in use for years by nurseries and park departments all over U. S.
- ✓ Saves time and labor on the big, profitable jobs.



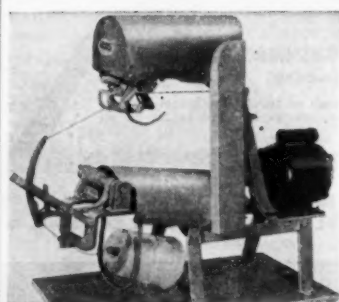
Write for detailed specifications and prices

SOLD ON TERMS IF DESIRED

Williams & Harvey Nurseries

P. O. Box 7068, Country Club Station

KANSAS CITY 2, MO.



New Rotary Model FELINS BUNCH TYER

Sturdier construction, smoother action, for tying all varieties of nursery stock, cut flowers and bunch vegetables at a great saving of time, money, twine.

FELINS TYING MACHINE CO.

3351 N. 35th St.

Milwaukee, Wis.

PERFECTION MARKERS ARE BETTER for Park Trees, Display Gardens, Field use or Greenhouse Pots or Benches. Proven by thousands of users and every one a booster! You'll like them, too. They will stand for years at one marking, or may be changed any number of times for various markings. Send for catalog and prices of the complete **PERFECTION LINE**.

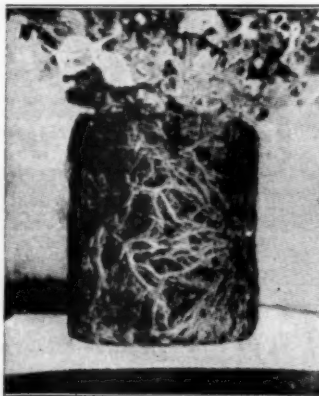
The S-W Supply Co., D. 33, Girard, Kan.

Tulip

Cut shows Plant Stake

MEL-LO PEAT

A Wonderful Soil Builder



Actual Photograph
Of Plant Grown with MEL-LO PEAT

Roots like these can be grown by anyone where Mel-lo Peat is used. See our ad in Classified Column.

MEL-LO PEAT CO., Willard, O.

GRO-QUICK ELECTRIC SEED BED HEATER

New HEAVY-DUTY GREENHOUSE CABLE
New BULB THERMOSTAT
GRO-QUICK 346 W. Huron St.
CHICAGO 10, ILL.



work is done on contract, but it is done on a time-plus-materials basis. Each job is made to pay. The best jobs come through the recommendations of satisfied customers. You can depend on the credit of such customers.

Great care is taken with each job to make it as nearly perfect as possible and to give each customer something different than his neighbor. In landscape work try to put in permanent plantings that require a minimum of maintenance. Put the right plant in the right place. Replace old overgrown plantings with some of the new and worth-while plants. Annuals are a nuisance, but Mr. Kohankie uses them in large quantities because the customers like them. Last year, Mayflower verbena and dwarf Riverside ageratum sold well.

It is a good policy to buy the majority of the stock used rather than to grow it. It is advisable to buy the majority of the plants necessary for landscape jobs from nearby nurseries as far as it is consistent with good quality. At busy seasons there is considerable difficulty in providing ample labor for nursery and landscape operations. One or the other is usually slighted. A landscape maintenance business must employ considerable good extra labor at busy seasons, since it is difficult to provide winter work to allow for year-around employment for all.

Mr. Kohankie has found that talks to garden clubs are good advertising, but a charge is made for these talks. If the talk concerns plants, he takes along some specimens to show.

Retailer's Income Varies.

Devol Ernst closed the panel with a discussion of some of the policies he follows in operating a retail nursery. The importance of selecting a good location was stressed. Provide a good frontage, neat and well maintained buildings and grounds, large display areas and fast and courteous personnel. Try to provide year-around activity.

Then Mr. Ernst related how income varies during the year in the retail business. He has found that his nursery sales are low in January. There is some increase in February with the grass seed and fertilizer business, considerable increase in March and April, with sales reaching a high in May. They taper off in June to a summer low in July, then show an increase in August, reaching a fall high in September and October, and finally taper off again in November and December. An attempt has been made to bring

"ROOTS-THRU" PLANT POT

WITH REINFORCED ROLLED EDGE

No longer necessary to remove
mizing replacements.

Suitable for Potting Roses,
and Many Other Items
Flower. Longer

ROSE POT

Top Diameter 7 ins.
Height . . . 9 ins.
Bottom . . . 5 ins.

Per 100..\$ 6.00
Per 1000 50.00

Packed
200 per carton
Weight, 25 lbs.
per 100 pots.

Bottom Flaps Folded

JUST POTTED

Will last full season on top
of ground. Samples on Request.

"ROOTS-THRU" POT
BOULEVARD NURSERIES

pots before planting, thus mini-
Instructions on each pot.

Shrubs, Bulbs, Perennials
for late Planting in Full
Selling Season.

PERENNIAL POT

Top Diameter 6½ ins.
Height . . 6 ins.
Bottom . . 5 ins.

Per 100...\$ 5.00
Per 1000.. 40.00

Packed
200 per carton.
Weight, 20 lbs.
per 100 pots.

← 3 MONTHS
AFTER planting
in the ground.

When placing pots on top of ground
leave a little air space around each pot.

PLANT POTS IN GROUND
Dept. B, NEWPORT, R. I

in more business in the low sales
periods by adding a landscape ser-
vice to take up the slack in the sum-
mer and a pot plant business to pro-
vide an income during the winter
months.

Mr. Ernst quoted figures on
monthly percentage of income from
an Ohio sales area landscape service
firm as being: January, one per cent;
February, one per cent; March, three
per cent; April, fourteen per cent;
May, twenty-eight per cent; June,
sixteen per cent; July, six per cent;
August, four per cent; September,
five per cent; October, seven per
cent; November, three per cent;
and December, twelve per cent.
It is difficult to operate a strictly
retail nursery business at a profit in
more than six or seven months of the
year, he said.

Research Projects.

The morning session closed with a
report of the Ohio State University
horticultural research committee of
the Ohio Nurserymen's Association.
The over-all program and plans for
1951 were discussed by Walter Bur-
well, Burwell Nurseries, Columbus,
chairman. William A. Kroger, grad-
uate research student, reported briefly
on the results obtained during
1950. This report concerned some of
the work on the effect of various



Price:
\$1.25 each

Build Your Own Irrigation System

Using the nozzle that gives adequate
irrigation on low operating cost.
Covers 40-foot circle on 15 lbs. pres-
sure. Complete even coverage im-
proves yields and quality of crops.
Plan and instructions sent upon request.

ITTNER BROS.
Box 2514 Minneapolis, Minn.

NURSERY TAGS

Suitable for Labeling

Trees - Shrubs - Plants -
etc.

Convenient - Economical

PREMIER SOUTHERN TICKET CO., Inc.
1623-31 Dana Ave. CINCINNATI 7, OHIO

NURSERY

FIELD STAKE

1 7/8 x 3/4 x 24 ins.

White Pine painted aluminum.

\$27.50 per 100

500 or more,

\$25.00 per 100

Sample sent on request.

The SIEBENTHALER CO.

3001 Catalpa Dr.
DAYTON 5, OHIO

GROWERS

When transplanting or starting
Nu Way soluble plant food

WILL

Lessen root shock
Hasten growth

YOU

Use it once—you will always

WRITE

For our "Prove It" offer.

NU WAY PLANT FOOD CO.
STREATOR, ILL.

The PRESTO FLOWER POT WASHER

Improved for Added Efficiency

ACCEPTED AND USED by foremost state and federal experiment stations, leading greenhouses and nurseries. In use for 25 years.

DESIGNED THROUGHOUT FOR LONG LIFE. Leakproof ball bearings—No eccentric vibration—Perfect automatic alignment of brushes—Valve-regulated water supply.

SIMPLE OPERATION—one motion to clean inside of pot—one motion to clean outside. Wash 1000 pots per hour.

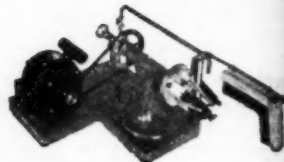
PRESTO-CLEAN means clean of dirt, roots, mold and all debris—inside and outside—that means profit in your pocket.

Write for price list and trial offer.

PRESTO MANUFACTURING CO.

366 BASSETT RD.

BAY VILLAGE, OHIO



HESS' NURSERIES, MOUNTAIN VIEW, N. J., growers of choice lining-out stock for thirty years report:

"The PRESTO has paid for itself many times over by minimizing infections and assuring quick removal of plants for shipment. We could not do without it."

DON'T DELAY! — WRITE NOW!

storage temperatures and prestorage pruning practices on the survival, growth and flower production of hybrid tea roses; a comparison of various fabric preservatives to determine their effectiveness for treating burlap to prevent rapid rotting when used for balled nursery stock; tests to determine the suitability of various materials for heeling in nursery stock, and the feasibility of growing nursery stock in metal containers. The report will be sent in full to contributors to the research fund. It was noted that better than seventy per cent of the members of the Ohio Nurserymen's Association were contributors to the fund.

Organic Gardening.

The first discussion on the Friday afternoon program was on "Facts about Organic Gardening," by L. H. McDaniels, head of the department of floriculture and ornamental horticulture, Cornell University, Ithaca, N. Y., who stated that, while there is a core of truth in most information concerning organic gardening, much of it is filled with fallacies, half-truths and outright misstatement of facts.

No one will dispute the importance of organic matter in the soil. Its effect on aggregation, porosity and water-holding capacity of the soil is well known. However, to state that all chemicals similar to nitrate of soda and potassium chloride are harmful to plant growth, while organic minerals from plants are satisfactory, is pure fallacy. All organic elements were at one time, before absorption, inorganics. Most organic molecules have to be transformed into inorganic types before they can be taken up by the plant. There is no difference in the elements nitrogen, phosphorus and potash whether they are in minerals or in plants. All chemicals that are organics are combined with carbon. Organic materials are more slowly available

HYPER-HUMUS

THE PURE ORGANIC SOIL CONDITIONER
THE GROWERS FRIEND FOR 35 YEARS

There's Nothing Else Like It

Never confuse HYPER-HUMUS with peat moss. HYPER-HUMUS is unique in content and preparation. Mined from rich deposit at Newton, N. J. It is surface-composted and processed.

Finer Root Growth, Less Damping-Off

HYPER-HUMUS encourages root growth, produces sturdy stems, large blooms and good foliage. Tender shoots will not be threatened with damping-off when HYPER-HUMUS is present to regulate the soil moisture.

Free from weed seeds and insect larvae, HYPER-HUMUS is safe, and results can be traced for years.

See your dealer or write us for literature.



HYPER-HUMUS CO. • Box 31, Newton, N. J.

IT COSTS NO MORE
(and in most instances less)

**FOR OUR PACKING OF
Nursery Burlap
Squares and Rolls**

Write for prices and samples.

L. ATKIN'S SONS
P. O. Box 167 Rochester, N. Y.

**LABELS
FOR
NURSERYMEN**

**THE
BENJAMIN CHASE
COMPANY**
DERRY, N. H.

than inorganics, which may or may not be advantageous.

Another misstatement of fact is that fruits and vegetables fertilized with inorganic chemicals are ruining consumers' health. One of the leading nutritional laboratories has shown that the vitamin content of the edible parts is the same whether the plants were fertilized with organic or inorganic fertilizers. It is important that we keep the right

perspective on this subject, said Dr. McDaniels.

The closing session of the educational program was a discussion of "Deciduous Shrubs We Have Tried," by William Cole, Cole Nursery Co., Painesville. He stated that greater interest is developing in new plants. New plants must be hardy in the nursery as well as hardy under landscape conditions if the nurseryman is to make any money growing them.

ROTO-HOE

- ✓Cultivates BETWEEN Nursery Rows (16 ins., over-all width)
- ✓Prepares Seedbeds
- ✓Pulverizes Compost Heaps
- ✓Mixes Fertilizer with Soil
- ✓Can Be Used on Greenhouse Benches
- ✓Sturdily Built and Precision Manufactured
- ✓Low Price—Retails at \$134.00.

Powered by dependable, powerful 2-H.P. engine. Simple belt and enclosed roller chain transmission. All wearing parts extremely low in cost, if replacements required. Acclaimed everywhere demonstrated as 1951's "BEST BUY" in the tillage field.

The new 12-inch rotary cutter attachment was designed to mulch weeds in nursery rows. This cutter mulches any size weeds and can easily cut cornstalks off close to the ground. This 12-inch mulcher is only \$24.00 extra.

Nationally advertised and distributed—some attractive dealer franchises open.

Write us for complete details.

ROTO-HOE AND SPRAYER CO.

Dept. 25

NOVELTY, OHIO

the NEW Laborsaver for NURSERYMEN



Here, at last, is the machine nurserymen have been looking for. Saves time, labor and expensive equipment required to properly cultivate and aerate the soil between nursery rows. No straddling, no breaking tops of plants — works between the rows. Over-all width, 16 ins.; width of tilling, 11 ins. Cultivated depth easily controlled. Easy maneuverability permits cross cultivation even though plants are not perfectly spaced.

Among the newer plants he recommended were Abeliophyllum distichum, Amorpha canescens, Aronia melanocarpa, Aronia arbutifolia brilliantissima, Aronia prunifolia, Berberis koreana, Berberis mentorensis, Berberis True Hedge, Berberis buxifolia nana, Calycanthus floridus, Ceanothus Blue Beard, Cytisus praecox, Euonymus fortunei erectus, Hypericum kalmianum, Ilex laevigata, Spiraea macrothyrsa, Syringa microphylla, Teucrium chamaedrys, Viburnum opulus xanthocarpum, Viburnum opulus nanum, Weigela vaniceki.

The convention closed with a short business meeting at which two resolutions were passed. Approved was a resolution favoring the passage of a bill to be introduced in the state legislature to create a classification of certified arborists in Ohio. It would not be compulsory, but any arborist could gain a certified arborists' rating by passing an examination. The other resolution passed would bring to the attention of the chief plant inspector the necessity of carefully checking the possible sale of damaged plants in stores and sales lots.

A. A. N. Chapter.

At the Ohio chapter meeting of the American Association of Nurs-

THE NEW MODEL B LINDIG SOIL SHREDDER

The World's Finest

Improved performance with

- Actioned Shredding Blades
- Increased Capacity
- More Uniform Shredding

Write for descriptive folder and prices and name of your nearest dealer.

LINDIG MFG. CO., Inc.

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TIMELY NECESSITIES for Prompt Shipment

● "HOLLANDIA" BURLAP SQUARES

New Material, Soft, Easy to Tie; Saves Time, Labor and Twine.

● REED MATS for coldframes

Write for prices; state requirements.

NEW AMSTERDAM IMPORT CO., INC.

122-A Chambers St., New York 7, N. Y.

Horticultural PEAT MOSS
Finely Granulated
High Absorbency



IT'S "ANTHONY" WOOD LABELS for LOW COST — for QUALITY

ANTHONY & CO.

ESCANABA, MICH.

**COMPARE
QUALITY
and
PRICE!
SEND IN
YOUR ORDER
NOW!**

GIANT BALE.....100 lbs.
HANDI-BALE.....60 lbs.
HANDI-BOX.....
better than 2 bushels
HANDI-KARTON.....
better than 1 bushel



HIGHEST-QUALITY PEAT MOSS...AT LOWEST PRICES... ORDER NOW FOR GUARANTEED SPRING DELIVERY!

Don't let the uncertain international situation lick you! From Maine comes the finest Peat Moss in the world—available at rock-bottom prices!

"For Land's Sake"—use

STATE-O-MAINE SPHAGNUM PEAT MOSS

DOMESTIC PEAT CO.

100 MIDDLESEX ST.

LOWELL, MASS.



erymen, Melvin Wyant, Mentor, and Lewis Bookwalter, Berryhill Nursery Co., Springfield, were elected as new delegates to the New Orleans convention. Walter Burwell, Burwell Nursery, Columbus, and Thomas Kyle, Spring Hill Nursery Co., Tipp City, are also delegates, serving their second year. C. M. Loose, Loose Nursery, Dayton; Merton Natorp, W. A. Natorp Co., Cincinnati; Paul Aukeman, Hollandia Gardens, South Vienna, and Harley Bratton, Slemmons Gardens Nursery, Worthington, were elected as alternates.

OHIO LANDSCAPE DAY.

[Continued from page 14.]

to the root zone area by the time growth starts in the spring.

He does not advocate early spring fertilization, but rather the application of a soluble-type fertilizer, as soil tests indicate the necessity, from June to September. Since commercial preparations are expensive, he recommends home mixing and the testing of the material on some farmer's pasture rather than on a customer's lawn. Combination sprays containing fertilizer and weed control materials can be used. For broad-leaved plants a nonvolatile type of 2,4-D per manufacturer's directions is recommended and the use of sodium arsenite at the rate of one pound per acre for crab grass. To control soil pests, earthworms, ants, grubs, etc., one-quarter pint of a forty per cent emulsion-type Chlordane per thousand square feet has been effective.

Because the roots of common Kentucky bluegrass become dormant at 60 degrees Fahrenheit, Mr. Lyons recommends the use of a new-type Kentucky bluegrass, B-27. It is relatively scarce at present and is expensive. For maximum results, seed at the rate of twenty pounds per acre. This type is by far the most

METAL LABEL MARKERS

Immediate Delivery

Steel wire stakes with galvanized or green enamel finish—Aluminum and Galvanized Labels.

Also other ideal Garden Gadgets.

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LANSING 12, MICH.

GOODRICH BUDDING STRIPS

are getting scarce. There have been one cut in the allotment of natural rubber for commercial purposes and two increases in prices.

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DISPLAY GRASS MATS
CUT GRASS
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Established 1909

Vitalize your transplants with

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emulsifiable wax preparation for transplanting trees and shrubs, designed to—

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- ✓ Promote Growth
- ✓ Extend Planting Season
- ✓ Prevent Xmas Tree Needle-fall
- ✓ INCREASE YOUR PROFITS

D-WAX, when applied to deciduous, evergreen, ornamental, fruit trees and shrubs, helps plants retain their moisture. D-WAX can be used with any type sprayer. One application is usually all that is required.

Manufactured by
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NURSERY BURLAP

Squares and Rolls

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MESH COTTON NET SQUARES

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disease-resistant to date and can be mowed to one-half inch and still be resistant to crab grass.

Elk-16 creeping bent grass has proved useful for home lawns and putting greens. It is mowed three-fourths inch high for home lawns and three-sixteenths inch high on putting greens. It is satisfactory at

both hot and cold temperatures and will begin growth early in the spring when the soil is cold. The grass grows extremely dense and is resistant to disease. Dollar spot may be encountered in the fall and is caused by a lack of fertilization, but it is overcome with the first application of fertilizer the following year. Elk-16 is propagated by stolons.



AGRICO FOR LAWNS, TREES AND SHRUBS. Contains all needed plant foods in right proportions to stimulate season-long growth of green-er lawns, healthier trees and shrubs. In 100, 50, 25, 10, 5-lb. bags.

AGRICO FOR GARDENS. Specially formulated for greater abundance of flowers, more bloom and color, and better vegetables, richer in minerals and vitamins. In 100, 50, 25, 10, 5-lb. bags.

AGRICO FOR BROAD-LEAVED EVERGREENS. Prepared expressly to feed Rhododendrons, Azaleas and other acid-loving plants. Builds up essential soil acidity. In 100, 50, 25, 10, 5-lb. bags.

AGRICO ROSE FOOD. Contains all essential elements — both organic and inorganic—for exclusive job of growing roses of highest quality, perfect beauty. In 50, 25, 10, 5-lb. bags.



4 Special-Purpose Fertilizers that Bring You DOUBLE PROFITS

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The AMERICAN AGRICULTURAL CHEMICAL Co.
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U-3 Bermuda has been found to take the roughest physical treatment. It is excellent for football fields, play areas and putting greens. The grass has fine texture and does well in hot soils and in the northern states. It can be mowed closely, but does not do well in shade or cool soils. Since it spreads rapidly, keep it away from flower beds.

By seeding B-27 bluegrass one-quarter pound per thousand square feet and sprigging stolons of Elk-16 creeping bent and U-3 Bermuda, a combination of seasonable grasses results that will keep excellent green color in the lawn all summer with a minimum of water and maintenance. For a good fall seed mixture, where it is necessary to use all seed, the following combination was recommended: Kentucky bluegrass, thirty-five per cent; creeping red fescue, fifty per cent, and colonial bent (Highland and Astoria), fifteen per cent, or redtop if bent is objectionable.

The colonial bent grass does not have the creeping habit of growth characteristic of creeping bent, will germinate readily and will not offer competition to Kentucky bluegrass and red fescue, as does rye grass or redtop. The trend in lawn mixtures, Mr. Lyons stated, is to reduce the



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FULL AUTOMATIC

ONLY \$25.50

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Water falls gently like rain, yet abundantly, over areas of 1500 to 2500 sq. ft. with perfect distribution. Operates on any pressure from 15 lbs. up, instantly adjustable to cover any width desired. Lasts a lifetime. C.O.D. or shipping prepaid for cash with orders received. 1500 sq. ft. or 2500 sq. ft. areas same price. Money-back guarantee. Shipping weight 20 lbs. Write for illustrated folder. Pioneers in overhead irrigation since 1926. Available now.

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THE WICHITA COMPOST COMBINATION LOADS, PILES, GRINDS, SCREENS and SEPARATES TRASH

Tough sod, clay, sludge and all organic matter ground through rollers that do not clog on wet materials.

Mellow material screened through perforated screens and trash perfectly separated. Carried over the elevator perfectly mixed and ground without separating light from heavy materials and piled or loaded up to 6 feet.

Patented Screens hold material against grinding cylinder until properly reduced. This is necessary for a perfect product. Two Hoppers: Upper hopper for materials to be ground. Lower hopper for loading only, or for turning the pile without grinding.

Our literature shows various models, all of which are perfect Compost or soil Builders. Ask for it; no obligation.

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Greenhouse Specialties BENT GARDEN HOSE VALVES — F.O.B. Newark, N. J.

Cash with Order

3/4 in. x 3/4 in. \$1.00

1 in. x 1 in. 1.25

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Nurseryman's Library

"A Nurseryman's library is not complete without books on plants, plant propagation and plant handling."

Here are some suggestions:

PLANT BUYERS GUIDE.

Edited by Edwin F. Steffek, \$7.50.

THE GRAFTER'S HANDBOOK.

by R. J. Garner, \$4.00.

CULTIVATED CONIFERS.

by L. H. Bailey, \$10.00.

PLANT DISEASE HANDBOOK.

by Cynthia Westcott, \$7.50.

CLIMBERS AND GROUND COVERS.

by A. C. Hottes, \$3.00.

COMPLETE GARDEN HANDBOOK

by Simon, Pearce, Hendrix and Elliott, \$5.00.

AZALEAS: KINDS AND CULTURE.

by H. Harold Hume, \$4.00.

SHRUBS AND VINES FOR AMERICAN GARDENS.

by Dr. Donald Wyman, \$7.50.

HOW TO INCREASE PLANTS.

by A. C. Hottes, \$3.00.

PROPAGATION OF PLANTS.

by M. G. Kains and L. M. McQuesten, \$4.00.

NURSERY MANUAL.

by L. H. Bailey, \$5.00.

THE BOOK OF TREES.

by Alfred Hottes, \$4.00.

THE BOOK OF SHRUBS.

by Alfred Hottes, \$4.00.

ROSES OF THE WORLD IN COLOR.

by J. Horace McFarland, \$5.00.

MANUAL OF CULTIVATED PLANTS.

by L. H. Bailey, \$17.50.

MANUAL OF CULTIVATED TREES AND SHRUBS.

by Alfred Rehder, \$12.00.

TAYLOR'S ENCYCLOPEDIA OF GARDENING.

by Norman Taylor, \$5.00.

MAINTENANCE OF SHADE AND ORNAMENTAL TREES AND SHRUBS.

by P. P. Pirone, \$6.50.

SPRAY CHEMICALS AND APPLICATION EQUIPMENT.

by J. A. McClintock and W. B. Fisher, \$6.25.

DISEASES AND PESTS OF ORNAMENTAL PLANTS.

by Bernard Dodge and W. L. Rickett, \$6.00.

These books can be obtained, at the publisher's price indicated, from

AMERICAN NURSERYMAN

343 S. Dearborn St., Chicago 4, Ill.

nurse grasses if conditions of topography permit.

To keep tree roots out of a lawn or putting green areas, dig a trench, six to ten feet from a 12-inch tree, to a depth of a foot below the root zone. A trench three feet deep is usually sufficient. On the side of the trench away from the tree, apply all the copper A compound (monohydrate copper sulphate) that will adhere to the surface. Application may be made with a spade and smoothed with a trowel.

[To be continued.]

PENNSYLVANIA MEETING.

[Continued from page 8.]

fertilizer with potash is applied and then a mulch, the potash will penetrate deeper into the soil. Considerable extra nitrogen needs to be added to the soil when a mulch is used, not because the nitrogen is used up faster under these conditions, but it appears that the nitrogen is tied up in the soil as the mulch decomposes. He suggested that, if increased acidity was not wanted, and one did not want to do any liming, to use nitrate of soda or cyanamide.

Treasurer's Report.

The next order of business was the report of the treasurer, A. F. Meehan. He reported that in 1924, when the association had thirty-one members and the dues were \$3; he took over the treasury with \$82.75 in it. The following year, the dues were raised to \$5 and there were fifty members. In 1938 the dues were raised to \$10 and there were fifty-nine members. Today, with 161, the dues are \$15, with a comfortable balance of \$4,139.82 in the bank and a savings bond with a \$500 maturity value. A profit of \$1,368.61 had been added to the treasury during the past year.

How to Keep Customers.

For the final talk on the afternoon's program a most fluent and entertaining speaker, Elmer Spencer, a nurseryman and landscape contractor from Springfield, Ill., offered advice on "How to Keep Your Customers." First one must get the customers, he said, and the nurseryman can either go out and meet his customers or do something to bring them into the nursery. In this regard, he commented on some of the deplorable-looking nursery sales grounds he had seen in some places and wondered how the owners ever expected to get any business. He said he had never yet seen a nursery with a driveway or parking lot that was too large.

AMERICAN NURSERYMAN

He advocated advertising for the retail nurserymen, but said to check up on it to be sure that it did some good. He thought that continued advertising did more good than occasional advertising. He carries a small classified advertisement continually in his local newspaper.

In most sections of the country, because of the climate or weather affecting the length of the gardening season, people have about four months to think about the nurserymen and about eight months to forget him; so he must get out where he can see people and meet people and keep them reminded of him and his business.

Get your customers out to the nursery as often as possible; get them to come at times of the year when they ordinarily would not come, said Mr. Spencer. In December, which is ordinarily a slack month for the nursery business in this part of the country, he cut down overgrown evergreens and had his men make wreaths and other Christmas decorations and had a sale on these. He said that it cost him \$317 for materials, including the evergreen bough, ribbon and wire and \$582.74 for labor, which he would have had to pay to his men anyway. He sold a total of \$1,398.13 worth of these decorations, and the average sale was \$4. The main point was that it brought people out to his nursery who otherwise would never have come. He said that he would hold an open house this spring to start off the garden season.

When you do get the customer into your nursery, try to influence him, but do not high pressure him, warned Mr. Spencer. Let the customer tell his story first. As he talks, plan your sales talk, whether you are going to try to sell him the services of a landscape architect, whether you will plan the landscape plan in your office for him or whether he should just buy plants and have no plan drawn.

Time is valuable, and whenever possible, try to sell the plan or draw the plan in the office without having to visit the property, but, if a customer does come in and wants you to come out and see his place, do not delay.

Other ideas which Mr. Spencer offered were sending cards to customers in dry weather to remind them about watering plants or telling them what to do about bagworms, red spiders or other pests at seasons when they became most troublesome. He said that his firm kept a card record of customers, because customers liked to be known.

When one returned to the nursery, Mr. Spencer would know something personal about him and could make him think that he was important enough for Mr. Spencer to remember him.

A. A. N. Secretary Speaks.

Final speaker on the afternoon program was Dr. Richard P. White, executive secretary of the American Association of Nurserymen, who entitled his talk "Facts and Fancies of the Times." At meetings of nurserymen's groups reported in previous issues, Dr. White had been more pessimistic. He said that 1951 would be the big build-up year in preparing for 1952, which would be the record production year and, if there were no big war, 1953 would see a leveling off.

Labor will be most critical for the nursery business, he predicted, as he believed that all men from 18 to 26 years old would be drafted. There might be some short deferments, but no long or permanent deferments this time. He advised nurserymen to look over their payrolls now and plan to start training older men or women for work wherever possible. He said the government is now negotiating for seasonal farm labor from Mexico and the Bahamas, some of which may be available to nurserymen.

Prices and wages have been frozen at their highest levels, but he predicted thaws in both freezes. He thought the United States was headed for a completely controlled materials plan with further allocations of many materials. Already the burlap situation is becoming tighter.

There should be a good demand for nursery products and, with high wages and growing shortages of other produces, more money to spend for nursery stock. There were 1,400,000 housing starts in 1950, an all-time record, and these all need landscaping. He estimated that there would be at least 700,000 housing units started in 1951. Coupled with these new jobs, which will be spread out over a long period, there are many renovating jobs to be done. He said that there would probably be a program similar to the victory garden program and that leading industrialists who were consulting with the United States Department of Agriculture about it now had said, "Don't forget the flowers," as these are important to the welfare of employees.

A. A. N. Chapter Meeting.

A meeting of the Pennsylvania chapter of the American Association of Nurserymen was held at the con-

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Both Tree Wrap and Nursery Squares made from crinkled kraft paper, laminated with asphalt. Special Wrap comes in easy-to-handle rolls, in varying widths. Protects against sun scald, severe frost, rodents, and abrasions. Maintains moisture content of bark.

CHASE DUPLEX NURSERY SQUARES

Have many protective uses. Come in wide variety of ready-cut sheet sizes to save you time and labor.



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Gentlemen:

Please send me more information about

- ☐ Chase Duplex Tree Wrap
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CHASE BAG CO.

General Sales Office: 309 W. Jackson Blvd., Chicago 6, Illinois

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Better Quality—Lower Prices
Prompt Service

Moisture-resistant labels, plain or printed, single or sheets for typewriter use. Wide variety, lowest prices.

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Letterpress and offset printing. Write for free samples and prices.

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A. M. LEONARD & SON
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Knives - Shears - Pruning Tools
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TWINE and CORDAGE

For all nursery requirements.

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ROUGH BROTHERS

Quality Greenhouses
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Saves hours of digging time . . . costly labor **NOW!**

Plant heavier, wider trees and shrubbery with the **EXTRA-WIDE, 18 to 24-in. diameter ROPER Digger**,



ROPER'S
PATENTED
EXCLUSIVE
FEATURE

3-inch Roller Bearing at
Point of Digging

This rugged, durable Roper Digger works perfectly in shale, stony clay, sandstone, any tough soil. Easily installed by one man in 5 minutes; fits any jeep or tractor. Cuts planting and transplanting time way down.

NO SWING OR SWAY . . . Stays rigid while digging . . . digs straight or at any angle, adjustable for hillside digging.

NO WOBBLING or breaking . . . Safety shear pin is at universal and is easily replaced in field. Three models to choose from that dig up to 42-in. holes; from 8 to 24 ins. in diameter.

Write for free information and name of nearest dealer. **FULL YEAR GUARANTEE** on all parts and workmanship . . .

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WRITE TODAY FOR INFORMATION.**

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ALUMINUM TAGS (All-weather)



3 1/2" x 3/4"

- Patented cardboard backing permits easy embossing with ordinary lead pencil.
 - Heavy eyelet. Copper-wired.
 - Attractive silver Aluminum, backed with yellow cardboard.
 - Inexpensively priced:
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| 1000 for . . . \$14.00 | 250 for . . . \$5.00 |
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Write for samples.

BERRYHILL NURSERY CO.
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The Original **SWISS** ROTARY TILLERS



"The
Machine
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copied
but never
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Best for
32 years

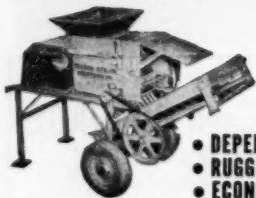
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- **DEPENDABLE**
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GRAFT WAX KANDLES CAULK WAX

A pure adhesive, noncracking wax compounded with effective anti-mold agent. 2 Kandle tubes; weight 2 lbs., \$1.00 postpaid.

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BURLAP SQUARES

Cut from used burlap.
16x16 ins. to 40x40 ins.

Mesh Cotton Net Squares
32x32 ins.

Your inquiries are invited.

GENERAL PACKAGE CORP.
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FIBERGLAS AERATING PADS
The Modern "Crack" for Pots

- 1 Vital Aeration
 - 2 Free Drainage
 - 3 No Soil Loss
- Fiberglas Pads are 3" square—1/2" thick. Can never rot—save time—save plants. Give your plants a chance to grow. ☐ 24 for 25c ☐ 100 for \$1 ppd.

GRO-CHUCK Mfrs., 308 W. Huron St., Chicago 10, Ill.



clusion of the state session. Mr. Boardman announced that officers of the state association automatically became officers of the A. A. N. chapter, and then delegates were elected to the July convention. Pennsylvania is entitled to four. Jesse Flory is the holdover delegate, and the incoming president, Owen Schmidt, automatically becomes a delegate. The third delegate was elected from the Pennsylvania association, and he is Alfred F. W. Vick. A fourth delegate will be elected by the Western Pennsylvania Nurserymen's Association. Three alternates were chosen, and they are Lewis Barr, Gertrude Burns and Eugene Muller.

That evening an informal banquet preceded by a cocktail party was followed by a floor show and an excellent movie on the Acadia national park in Maine.

Committee Reports.

The meeting was resumed Thursday morning with reports of various committees. Jesse Flory reported for the public relations committee that the association had written to newspapers throughout the state asking them if they would accept releases for publication, and nine favorable replies were received. He said that Clarence Pontz had written a series of articles for the Lancaster newspaper which carried his byline and also mentioned his connection with the Pennsylvania association and the A. A. N.

A "Plant Pennsylvania" program is under way as part of the "Plant America" program, and A. O. Rasmussen, department of horticulture, Pennsylvania State College, said that, as part of it, the college was going to give a planting demonstration around the houses and also at the community hall at the new Aluminum City housing project at New Kensington the day after Arbor day. The university and nurserymen have made twenty broadcasts and three transcriptions used on twenty-four stations on the "Plant America" program. He said that the college would like lists of plant materials available from Pennsylvania nurserymen in order to answer inquiries. The college also has available Kodachrome slides of various plant varieties and landscape scenes, and nurserymen may select those which they would like and have duplicates made at a small cost.

A. A. N. Director Reports.

As a member of the board of directors of the American Association of Nurserymen, for region 1, Peter Cascio came from West Hartford, Conn., to speak about the activities

of the national association. First, he told about the "Plant America" and "Plant Connecticut" programs and how he had been able to attract four times the business and over three times as many customers to his nursery as the preceding week by tying in his advertising and merchandising ideas with "Plant Connecticut" week.

Mr. Cascio has also been most successful in using the idea of landscaping for climate control and said that he had increased his business forty-two per cent in the past year, partly as a result of using this line of sales talk to customers. He said that he had been able to get records from Yale University to prove that planting a hedge on the northeast side of a home would save the owner 22.9 per cent of his coal bill, or that while the temperature on the roof was 100 degrees, the temperature at the same time under a tree was 78 degrees. He said that he had formerly sent out mailing pieces to a list of 400, but had increased this to 2,400, putting everyone on it who owned a home of a value of over \$20,000. All of these were ideas obtained from A. A. N. publicity releases.

He told about the group insurance program which the A. A. N. will start and said that members would have to have twenty-five or more permanent employees to buy the same type of insurance, so that it was going to be most valuable for the small nurserymen.

Reporting for the state-federal nurseries committee, Russell Harmon said that he and several other nurserymen, including Joe Schwab, Mrs. Dorothy Musser, Ira Frontz, A. Billerbeck and Charles Hetz, had been surveying state nurseries to see if they were selling plants in competition with commercial nursery businesses. While most of the nurseries reported that the stock being grown was for reforestation purposes only, it appeared that a great number of ornamental trees were being grown.

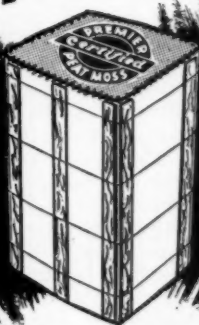
Reporting for the legislative committee, Frank LaBar told how the association had been successful in having a bill pigeon-holed by which a Pennsylvania senator wanted to classify nurseries as industrial instead of agricultural.

Landscape Architect Licenses.

He told about a proposed bill that the Pennsylvania landscape architects wanted to bring before the state legislature which would require licensing of landscape architects and would mean that the landscape nurseryman could not do his normal

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your soil



PEPS-UP
your sales



WHEN you put Premier Peat Moss into soil, you put PEP into your growing and selling.

Premier peps-up soil because it absorbs as much as 20 times its weight in moisture—grows finer and more vigorous roots.

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97% Organic • Weed-free
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PREMIER
CANADIAN PEAT MOSS
Tops in quality and packing.
6 sizes for every need.

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BALES IN 6 SIZES

BAGS AND CARTONS
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1 Peck to 3 Bushels

Ask about our "Pack in the Profits" Plan

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Salem 30-in. FERTILIZER SPREADER



**A Larger Model for
A Quicker Job**

- Steel construction with reinforced hopper.
- 30-in. spreading width.
- 80-lb. hopper capacity.

Retail price, \$17.50
Dealer's price, \$12.25

All models are equipped with patented, automatic shut-off feed control—Just lift the handle and the flow of fertilizer stops.

Write for information on other models.

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The Sudbury Soil Test Kit saves you from using the wrong fertilizers by accurately showing correct amounts of nitrogen, phosphate and potash your soils need. Also shows pH. Result is bigger yield, better quality, more fancies—more profits with same overhead.

So Simple Anyone Can Use It!
 Easy as reading a thermometer! Nothing to know; nothing to learn. Make tests anywhere, anytime at only 10c per test! No more waiting for reports.

SEND FOR YOURS TODAY!
SEND NO MONEY—Super deLuxe Model, welded steel carrying case, complete directions and supplies for hundreds of tests. Clip this ad. Send your name and address and we'll mail C. O. D. \$24.95 plus postage—or enclose check and we pay postage. Use 10 days, if not delighted, return for full refund.

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 Dealers: Write for Special Offer!

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NEW CADDY CART AUTO-LOAD COMPRESSION SPRAYER



Loads itself as pressure is pumped; no spilling or waste.

- ★ All-brass tank
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 Ornamental design adds to beauty of yard or garden. Self-Supporting—No Stakes or Posts! Easy to set up and just as easy to remove. WRITE FOR LITERATURE AND DEALER PRICE LIST

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Pronouncing Dictionary
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 343 S. Dearborn St. Chicago 4, Ill.

work of assisting the client in drawing up plans or supervising landscape jobs under these provisions.

Later in the meeting, Eugene Muller said that he and Mr. LaBar had met with four of the architects to iron out differences and that it was suggested that representatives of the nurserymen's group and its attorney meet with the president of the landscape architects' group and its attorney at Philadelphia before the legislature convened. A special committee was appointed by President Boardman to meet with an attorney which the association would employ for this purpose. The committee is composed of Eugene Muller, Frank LaBar and J. F. Styer.

The first speaker on the morning program was Victor H. Ries, extension floriculturist, Ohio State University, Columbus, who showed colored slides of various shrubs and evergreens which he thought nurserymen might use more. Among them were the Persian lilac, which has smaller foliage and fits in better with smaller architectural forms, and the coarser foliaged lilacs. He recommended the Japanese lilac, *Syringa amurensis*, for use as a small tree. Among the azaleas, he liked *Mucronulatum*, *Ledifolia Alba*, *Schlippenbachii*, *Poukanense*, *Mollis*, *Arborescens* and the Ghent Hybrids, for their unquestionable hardiness.

Use of Mist Blowers.

The next speaker was George Tirrell, of Greenfield, Mass., representing the A. B. Farquhar Co., York, Pa., who explained "The Use of Air as a Carrier for Spray Material." The mist spray was developed during the past five years almost exclusively for shade tree and public health work, but last year a low-concentrate spray program and the use of air as a carrier for spray material were introduced to the orchardists of America. Some work has been done in row crops, but not enough as yet to make authorized recommendations for such a spray program. Nurserymen are now becoming interested in the spray method, and their requirements seem to include the needs of arborists, the fruit grower and the row-crop farmer. It is reasonable to assume that because of versatility of the mist sprayer, a machine of proper size and capacity can be adjusted to the various needs of the nurserymen, said Mr. Tirrell. His further remarks will be published in a later issue.

Tree Diseases.

After the luncheon recess, Paul E. Tilford, executive secretary of the National Arborist Association, Cleve-

land, O., spoke on "Tree Problems of the Nurseryman." His remarks were primarily concerned with oak wilt disease and Dutch elm disease. The oak wilt disease was discovered in Pennsylvania for the first time last fall near McVeytown, in Middlethian county. The other nearest infestations were at Cleveland, O., and before that at Gary, Ind., but it seems impossible that the disease could have spread so far so quickly with no intervening infestations. Mr. Tilford described the symptoms of the disease. They are wilting of the top and an off-coloring in the foliage which spreads through the crown in red and black oaks. The white oak is more resistant, having what looks like a stag-headed condition when affected. In the white oak species pruning can be done to arrest the disease in many cases. The disease affects all native oaks of the United States.

Among the oaks there is natural root grafting of species, and it is through these root grafts that the fungus seems to be transmitted locally. How it moves over long distances is not known. It appears that it may be carried by some agency that flies, as it is usually the tallest tree in a planting that is affected first. Breaking of root grafts, by trenching or poisoning with chemicals, is being practiced now to control the disease in local plantings. The Wisconsin conservation department has developed a root cutter which may be hitched to a tractor and cuts down to thirty to thirty-six inches deep in sandy soil.

Dr. Tilford thought that control of the European elm bark beetle which spreads the Dutch elm disease was the best way of stopping the spread of this disease. The beetle only lays eggs in sick or dying elms. Its hundreds of eggs hatch into grubs that burrow into the cambium area of the elm tree. If the tree is diseased, the grubs that develop into beetles carry the fungus spores when they crawl out of the bark. They fly to healthy trees to feed on the bark at the branch crotches, thus infecting them. Sometimes feeding is so extensive that the small twigs around the area wilt.

Spraying to kill the beetles is done with DDT or arsenate of lead. DDT gives the best residual effect. The United States Department of Agriculture recommends a late dormant spray of DDT just before blooming period, either a two per cent DDT emulsion in a hydraulic sprayer or a twelve per cent DDT emulsion with the mist blower, to give thorough coverage. The spray is effective

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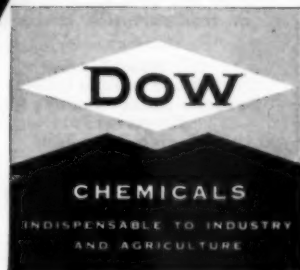
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for forty-five to ninety days, and then a spray should be given again in June at half these concentrations. Spraying for elm bark beetles is expensive, however, particularly the foliage spray in June, for it requires about one and one-half gallons per 50-foot tree in a mist blower and thirty gallons per tree in a hydraulic sprayer. Often red spider or aphid infestations follow applications of DDT, so in some places it is advisable just to use a dormant spray or to use a less-concentrated spray for the second spray or just to use arsenate of lead. The Connecticut agricultural experiment station reports almost as good control with using just the one dormant spray instead of both the late dormant spray and the June spray.

Where both dutch elm disease and phloem necrosis occur, Dr. Tilford advised not planting American elms until these diseases can be controlled more chiefly. Where the Dutch elm disease occurs he said one could still plant some American elms. As a good tree to replace the American elm in landscape planting where a similar tree was wanted, he recommended the Moraine honey locust.

Rodent and Deer Control.

Final speaker on the program was Ernest M. Mills, assistant district

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agent, fish and wildlife service, United States Department of Interior, branch of predator and rodent control, New Brunswick, N. J., who discussed "Control of Rodents, Moles and Deer in the Nursery." His recommendations for control measures will appear in a subsequent issue.

Before the meeting was adjourned, other matters of business were brought up, and officers were elected and installed. At the suggestion of Eugene Muller, the association voted to investigate the possibility of membership of the Pennsylvania Council of Farm Organizations made up of associations connected with agriculture.

Convention Notes.

Wearing good tans from their recent southern vacations were Frank LaBar and Eugene Muller. Mr. LaBar had just returned from a vacation in which he flew to Haiti and the Dominican Republic and also Florida. On the way home he was on the program for the Kentucky Nurserymen's Association meeting. Eugene Muller had spent his vacation at Nassau.

A group of forty-two nurserymen and wives came to the convention on a special train car from Philadelphia, but arrived so late that they found themselves without hotel reservations.

Planning to fly to the Pennsylvania convention from the Virginia nurserymen's convention at Richmond, Charles Hess was forced by bad weather to take the air-line limousine from Richmond to Washington, D. C., before he could fly to Pittsburgh.

Since Atlantic City, N. J., is a possibility for the 1953 convention of the American Association of Nurserymen, several nurserymen from region 1 plan to look over the situation. Among them will be Frank LaBar and Charles Hess with A. A. N. Secretary Richard P. White.

While at Pittsburgh, A. A. N. Secretary White and Peter Cascio, A. A. N. director for region 1, tape recorded broadcasts on "Plant America" and "Climate Control" for radio station KDKA.

Walter Stein, of Enterprise Nurseries, Wrightsville, is program chairman for the monthly meetings of nurserymen in the Philadelphia area. His son, H. Paul Stein, has just been drafted.

NEWLY elected president of the Men's Garden Club, of Lancaster, Pa., is Gustaf E. Malmberg, owner of the Malmberg Greenhouses & Landscape Service, Mannheim, Pa.

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xx, fld, 12 to 18 ins.
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DECAISNE, S, azure
xx, fld, 18 to 24 ins.
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GENERAL SHERIDAN, D, white
xx, fld, 2 to 2½ ft.

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xx, fld, 12 to 18 ins.
xx, fld, 18 to 24 ins.
xx, fld, 2 to 2½ ft.

LAMARTINE, S, Wedgwood-blue
xx, fld, 18 to 24 ins.
xx, fld, 2 to 2½ ft.

MME. FLORENT STEPMAN, S, white
xx, fld, 10 to 12 ins.
xx, fld, 18 to 24 ins.
xx, fld, 2 to 2½ ft.

MME. LEMOINE, D, white
xx, fld, 2 to 2½ ft.

MARECHAL LANNES, D, violet-blue
xx, fld, 2 to 2½ ft.

MISS ELLEN WILLMOTT, D, white
xx, fld, 12 to 18 ins.
xx, fld, 2 to 2½ ft.

PRES. CARNOT, D, rosy-lavender
xx, fld, 18 to 24 ins.
xx, fld, 2 to 2½ ft.

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xx, fld, 10 to 12 ins.
xx, fld, 12 to 18 ins.
xx, fld, 2 to 2½ ft.

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xx, fld, 10 to 12 ins.
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SOUVENIR DE LUDWIG SPAETH,
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xx, fld, 10 to 12 ins.
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